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THE

PRINCETON REVIEW.

By Whom, all things; for Whom, all things.

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GROUNDS OF KNOWLEDGE AND RULES FOR BELIEF.

THAT there is at present a sceptical tendency of the public mind no one can doubt. With many, perhaps with most, this is, as yet, simply a tendency, a drift, a state of doubt sufficient to paralyze effort rather than positive unbelief or misbelief.

How far this is honest it is difficult to say, because an attitude of doubt, as well as of scepticism, is so often assumed from indolence, or fashion, or hostility to truth, or from its supposed implication of superior discernment. With such, discussion can be of no avail. It is only with honest doubt that we wish to deal. That is to be respected and even encouraged because it springs from a desire to know the truth. Let that be well noted. doubt is honest that does not spring from a paramount desire to know the truth. Such doubt neither can nor ought to be removed except by presenting adequate grounds of belief, and those that shall be seen to be adequate. If there be such grounds, they can be shown. If not, the doubt should abide. No belief can rest on a ground that is stable for him who holds it, if it be not a ground which he himself sees to be adequate. Let me then invite you to accompany me in an inquiry after the grounds of knowledge and some rules for belief.

But if we are to go on together, you and I, we must start from common ground. We must either have no beliefs at all, in which case we cannot go on, or we must have common beliefs the grounds of which are either known or assumed to be adequate. What common ground, then, have we? To begin at the beginning, this: In writing I shall assume that I exist, and shall ask of you to assume the same thing. Again, in reading,

you will assume that you exist, and I will reciprocate your courtesy and assume the same thing. We shall then have common ground, I assuming my own existence and yours, and you assuming your own existence and mine. It will then be suitable for us to proceed and inquire what is involved in this existence, and also what other beings exist and what is involved in their existence.

But we must first inquire what right we have to assume that we exist. What right have I, who write this, to assume that I exist? Do I know it? and if so, how? I know it because it is so involved in my thinking that I must know it. I do not infer it, but know my thinking and myself in one concrete act. I know myself as thinking. I know it by necessity. Except on this knowledge I cannot use the word I. It is so involved in all that I do that I can have no right to do anything without it. What right can a man who does not know that he exists have to be talking and acting as if he did? It would be an impertinence that could not be suffered. We are then compelled to know that we exist. It is not a matter of choice or of will. we claim to deny or to doubt it, the very denial or doubt assumes it. But if an assumption thus by necessity be not equivalent to certainty, nothing can be certain, and then we have no basis for proceeding at all.

It should be fully understood, as it has not always been, that in beginning our inquiries we are shut up to the necessity either of beginning with certainty—that is, with knowledge—or of having no right to begin at all. This is obvious; for if a man were to say, "I am not certain that I exist, I doubt it," he might be asked, "Are you certain that you doubt?" If he were to say "Yes," that would be to begin with certainty. If he were to say "No," we should ask him what right he has to be troubling people with his doubts before he is certain he has them. We should certainly require him either to keep on doubting till he should become certain of his doubts, or to hold his peace.

This certainty of our own being which we must thus have to start with is said by some to be from consciousness, and by others from self-evidence, but I do not see that anything is gained by interposing these two words or either of them. I

prefer to say simply that I know my own existence in the act of knowing; that is, that the power of knowing, and of knowing myself as knowing, is a primitive original power of my mind of which no account can be given except that it is. Thus do we, by a subjective necessity, know being, and also the existence of a being that knows itself to be. Does any one deny this in regard to himself? We cannot prove it to him, but it will matter little to us whether he exist or not, since, as we have seen, he commits logical suicide, and we have only to bury him decently and pass on.

In thus reaching at once the fact of being we reach that which probably no finite being can comprehend. That anything should be must forever remain a mystery, and the mystery which underlies one form of being is as great as that which underlies any other. How being of any kind came to be, or that there should be being that never did come to be, we cannot comprehend. This is well expressed by Coleridge in his rhapsodical way. "Hast thou," says he, "ever raised thy mind to the consideration of EXISTENCE, in and by itself, as the mere act of existing? Hast thou ever said to thyself thoughtfully. IT IS! heedless in that moment whether it were a man before thee, or a flower, or a grain of sand? Without reference, in short, to this or that particular mode of existence. If thou hast indeed attained to this, thou wilt have felt the presence of a mystery which must have fixed thy spirit in awe and wonder. The very words, There is nothing! or, There was a time when there was nothing! are self-contradictory. There is that within us which repels the proposition with as full and instantaneous a light as if it bore evidence against the fact in the right of its own eternity. Not TO BE, then, is impossible: TO BE, incomprehensible."

That all men must thus know being is clear, but how far they all consider it thoughtfully, and attain to the wonder spoken of by Coleridge, is not so clear. The capacity for this reflex thought and wonder all have, but the thought and the wonder probably all do not have. With some these appear early, and the mysteriousness of this being of ours and of all connected with it comes over them with an overwhelming power. But whether evolved in all or not, we find in this capacity a clear

line of distinction between man and the brutes. No brute has the capacity to think of "existence in and by itself," or of being that never began to be, and of course has not the capacity of wonder connected with such thinking. To the brute and also to many persons, that things should be as they are is a matter of course, and if they are surprised or wonder, it is not that anything is, but that something is different from what it has been accustomed to be. To be surprised at what is new has its use in the mechanism of a being related to time. It puts it on the alert to guard it against danger in new combinations; but a capacity to wonder at being, of necessity coeval with a past that had no beginning, can have no relation to the wants of time. It must belong to a being capable of apprehending infinity, and who, if not related to that duration which has had no beginning. is yet ready to be swept on in the current of that which has no end

Having thus by necessity, or, if you please, by reason, or inspiration, or transcendentally, but at any rate by necessity, and with no intervention of the will, a knowledge that we exist, what else do we know in the same way? We know in the same way all those things in regard to which a distinction can be made between the order of time and the order of nature, and which are first in the order of nature. Thus, in knowing our own existence we know first in the order of time our thought, and then we know that in the order of nature our existence must have been before our thought. The thought we know directly; existence or being we know in knowing the thought. It is thus that we know space in knowing body, time in knowing succession, and cause in knowing events. With the ideas thus given there are truths immediately connected: as, that every body must be in space, and every event must have a cause. These we believe by necessity; not by necessity as an agent, but we are so constituted that we necessarily believe them. These ideas and truths are a class by themselves. The ideas are given and the truths known by what is called the reason, and are essentially different from single truths immediately known by sense or intuition. By Reid they were called principles of common-sense, and by Dugald Stewart fundamental laws of belief. By some they have been called transcendental ideas

and truths, and there is in them all there is that is solid of the nebulous transcendentalism that has been in our sky for the last fifty years. These ideas and truths are involved in our several mental processes as mathematical axioms and mere intuitions are not. Hence they are a different logical element, are of much greater importance, and should alone be ranked as first truths.

The truths of this class, and the same may be said of mathematical axioms, are first seen in some particular instance, but pass at once into a general form. This they do by a process of what may be called extension, but it is so elementary that it has not received a name. Naturally, and almost universally, the terms generalization and induction have been applied to processes in which these ideas and truths are involved, but they are misleading. The logical principle is not the same. In generalization and induction the underlying principle is resemblance. and through them absolute certainty cannot be reached; but here the underlying principle is identity, and we are as certain of the general as of the particular truth. As soon as we understand the terms we know at once, with no repetition of instances, that every body must be in space as certainly as we know that one body is in space. And so of causation. We are as certain that every event must have a cause as we are that one event has a cause. By applying generalization and induction in this connection we either give to those processes a validity that does not belong to them, or cast suspicion upon a process that gives certainty.

Having admitted the stupendous fact that we are—that is, of being—we can know nothing a priori of the forms in which being may manifest itself. We can only know those forms as they are revealed to our immediate knowledge in the manifestations of our own being, and to our observation in the manifestations of other beings or forms of being. Does our being reveal itself in the form of feeling? Then we know what feeling is, just as we know what knowing is when it reveals itself in the form of knowing. Does it reveal itself in the form of choice and volition? Then do we know what choice and volition are in the same way. In general it may be said that we know immediately and necessarily every essential mode, as memory or

imagination, in which our being spontaneously, and so necessarily, manifests itself.

And here it is to be observed that we have a knowledge of facts that do not admit of verification. The knowledge must be taken for what it is worth, but the peculiarity of it is that if it be not implicitly received no other knowledge can have any basis. No man can verify the fact that he exists by any assertion or mode of action that does not imply his existence, or that is more evident; and if he deny or doubt that he exists, he can have no right to affirm anything else. This class of truths. then, whatever they may be, admit neither of denial, nor of proof, nor of verification. Alarm has been expressed recently in some quarters because the facts and evidences of Christianity do not admit of verification. Science, it is said, requires this; and it is supposed that what cannot offer this may be overthrown by science, or, at least, can furnish no adequate ground for belief. But, to say nothing of historical truths universally that can never be repeated, and so cannot be verified as experimental facts can, before being alarmed about the overthrow of any class of truths by science or philosophy it may be well to inquire how far they are the very truths without which there could be no science and no philosophy. If by verification anything more is meant than an adequate ground of belief of whatever kind, we cannot rationally believe that such a man as Napoleon Bonaparte ever lived.

We have, then, each for himself, a certainty of our own existence, and also of those forms of our existence in which it spontaneously or, which, as related to our will, is the same thing, necessarily reveals itself. Immediately and necessarily do we know ourselves not only as knowing and feeling, but as choosing, as free, as under a sense of obligation and of responsibility; and the more we reflect on this original and necessary form of knowledge the more importance we shall attach to it. It belongs implicitly and unreflectingly to all men, and constitutes that great deep of their convictions which, however its surface may be ruffled and even tossed by philosophic speculations, abides essentially the same and undisturbed from age to age. This knowledge, equally the property of all, equally valid for all, it is the business of the philosopher to eliminate, to bring

into distinct consciousness, and state precisely what it is. At this point philosophers may differ. They may even deny that there is such knowledge at all, but meantime the world goes on, and the philosophers with it, believing these truths, and showing that they believe them by acting upon them. It is, indeed, a good criterion of these truths that those who deny them not only do, but must, act upon them. He who denies his own existence must act as if he existed; he who denies the existence of space cannot move without implying it. The truth is he cannot deny them without falling into absurdity, and the fact that he thus believes them by necessity detracts nothing either from his freedom or his dignity.

We have now ground to stand on. We know our own existence and those spontaneous modes of its manifestation by which we are men in distinction from other beings. We know them with a certainty that admits of no question. But knowing these things thus, do we know with the same certainty the existence of substantive being that is not ourselves? With the same certainty I think we do, but not in just the same way. We know intuitively and necessarily that there is that which resists motion originated by us, and it is from such resistance that we gain our original idea of matter. If there be not that which resists motion, involving the ideas of inertia and of incompressibility, we can have no idea of matter; but if there be, and we find it, then do we find something that is not ourselves, but that stands over against ourselves. gives us the substance of an external world which may be clothed with attributes presented to the senses, and may become the cause of sensations purely subjective in us, and which, but for the power of motion, could never have been known as having a corresponding object. Thus, as it is by the power of thought that we know ourselves to be, so it is by the power of originating motion, and by the power of something out of ourselves to resist motion, that we know a world of matter to be. This power to originate motion is not inferred, but is immediately known, for it is, no less than the power of thought. an original mode of the manifestation of our being, and one that is among the first to reveal itself. This immediate knowledge of matter is the natural realism of Hamilton. Perhaps it may be

questioned whether our knowledge of the existence of matter comes in this way, but that it comes necessarily in some way I must believe, for if not the existence of matter cannot be proved, and yet all men act upon it with the same certainty as upon their own existence.

In gaining as above a knowledge of matter we have also by necessity two ideas which play an essential part in all our ideas and speculations concerning it. These are the ideas of force and of motion. We have them by necessity because force is a mode in which our being necessarily manifests itself. Force is that which originates, or tends to originate, motion; and motion, or resistance to motion, is the only mode in which force is re-That which originates motion, and, so far as we know, that only, is volition. We know ourselves as originating motion by volition. In all other cases the immediate antecedent and, as we say, cause, though it be but a second cause. is a body in motion: and motion once originated may be itself perpetuated or transferred from one body to another apparently And here we may notice an analogy between without limit. force and motion on the one hand, and thought and language on the other; for as motion is the expression of force, so is language the expression of thought; and as force, once originated and expressed in motion, perpetuates itself and can be communicated from one body to another apparently without limit of either space or time, so thought expressed in language may be communicated from one mind to another and may be perpetuated forever. Force and thought—through these the universe was constructed and is permanent in a perpetual ongoing, Motion and language—through these force is known and thought. understood.

We have then, as I hope my reader will agree with me if he has accompanied me so far in these dry discussions, a kind of knowledge which no man can verify, and of the validity of which no man can doubt without committing logical suicide. This knowledge is not science or philosophy. It is the prerequisite and underlying condition of all science and of all philosophy. The extent of this knowledge, which all men not only may have but must have, I do not now claim to give, but only affirm that such knowledge there must be, and specify some things thus known.

In regard to this knowledge I have just said I hoped you, my reader, would agree with me, but am reminded that as yet you exist only by courtesy, and I proceed to inquire whether I have the same right to assume and the same ground for assuming your existence, or that of any other man, that I had for assuming my own existence, or the existence of matter. I think not. Perhaps the certainty may be as perfect, but the ground is not the same. Let us see. When I affirm that you exist, I do not merely affirm that something exists besides myself. That I might know by perception, which I hold to be a method of immediate and necessary knowledge. Through that I might get a knowledge of certain bodies as organized and having physical properties. but those bodies would not be you. If your body were never to be moved except by external force. I should not know that you It is, then, through the perception of motion originating from yourself that I know that you exist; through that only. But the validity of this knowledge depends on two assumptions. One is that the motion has a cause, thus bringing in the fact of causation as a necessary element of our thinking. The other is that we can judge from the motion of the nature of the cause. This postulate has no name. It is not mentioned as a law of our thinking as the law of causality is, but it is not less universally accepted or less uniformly acted upon. If, then, I see in an organized body movements that tend to the good of the individual and of its species with little or no power of adapting those movements to new combinations and varying conditions, I judge that the cause within is a being possessed of instinct only. see movements wild and aimless, indicating recklessness of the proprieties of time and place and a disregard of the welfare of the being himself and of others. I say that the cause within is a being who is crazy. But if I see movements, some of them resulting in rational discourse, and others showing an apprehension of varying relations and a comprehension and choice of worthy ends, then I necessarily interpret those movements by the knowledge I have already gained of myself, and say that there exists back of the movements a rational and personal cause. If, therefore, my reader, you will assent to the propositions I have been seeking to establish by but a slight nod of the head, I will not only assume that you exist, but that you exist as a

rational and sensible person; and if you do thus assent, I am sure you will assume that I exist in the same way.

But here it may be asked, If it be in this way that we come to the knowledge of the existence of our fellow-men as personal beings back of their movements, but whom we never really see, why do we not have the same evidence of the being of a personal God back of the movements of nature?

The problem is the same. In each case we pass from a direct apprehension of movement to that which lies back of it; and if the movements of nature gave evidence of their origin in one personal being equal to that given by the movements of our fellow-men, our evidence for the existence of God would not only be of the same kind, but would be equal to that for the existence of our fellow-men. But the evidence is not equal, and for several reasons.

One is that no one source reveals itself to the senses from which the movements of nature emanate. The stone falls, the smoke ascends, the heavenly bodies revolve, the tides come and go, and we do not readily trace these movements to one source. This diversity of movement and of the operations in nature, together with the marked division of what we see into the heavens, the earth, and the ocean, led those who did not like to retain God in their knowledge to a fanciful polytheism.

Again, there is not only great diversity of movement in nature, but an apparent opposition of tendencies. Vegetable life and warmth and moisture tend in one direction, the creeping frost and blight and mildew tend in another. The instinct of the hare tends to its own preservation, that of the dog to its destruction. We have on the one hand the beneficence of nature; on the other, we have tornadoes and floods and earthquakes. This apparent opposition of tendencies has led men to believe in two beings, one good and the other evil, and sometimes to the worship of the evil one.

Again, the movements in nature are by general laws, and so far as they are wholly so seem to be impersonal. They make no exceptions and pay not the least regard to character or to the interests of sensitive beings. When we come to understand it we can see the necessity and wisdom of this as a condition for the training of free and responsible beings; but on the face of

it there is a uniformity and blind persistence in these movements, or, as they are sometimes called, laws, indicating a force behind that is instinctive and necessitated rather than one that is rational and free. Hence, on the part of those who look too exclusively in this direction, a belief in an impersonal principle as back of all movement in nature, and in pantheism.

Some force back of the movements of nature we must admit. All do admit. And knowing the universe as we do now in its unity, and in the universality and perfection of its contrivances and adaptations, we say that we have as much evidence for a contriving and adaptive power lying somewhere and somehow behind it as we have for such a power lying behind the works and the movements of man. We say, too, that there is thought in nature, as distinct from contrivance. The conception of a tree must have preceded the tree, and that is a thought and not a contrivance. The same is true of the different organized beings in nature in their orders and species, so that nature is full of thought as well as of contrivance. We have, therefore, as much evidence of a thinking force back of the structures formed by nature as we have of such a force back of those formed by man.

But force, contriving force, thinking force—these are not God. No. we know God as God only as we know him in his moral attributes, and we can know him in these only as we know him through our own moral nature. As a God possessed of force, we know him as we are possessed of force. So only, As a God of contrivance and of thought, we know him only as we are possessed of contrivance and thought; but as a holy Moral Governor and as a God worthy to be worshipped and obeyed, we know him only as we have a moral nature and a capacity for love and worship and obedience. With such a nature, if men would take themselves into the account as they logically should, and if there were no mists from a wrong moral state, I think they would grow up in a recognition of "the invisible things of him" as readily and as uniformly as of each other. The step from a created moral and personal being to a moral and personal creator would seem immediate and imperative, and men would feel that their knowledge of God rested on This could be, however, only through the certain ground. normal action of the moral and spiritual powers, and might be prevented by wickedness.

That there are those, as Cousin, who place the existence of God among first truths, and so preclude the possibility of But to this I cannot assent. atheism, I know. Neither do I think that the belief of all those who believe in the existence of God rests wholly on argument, or on evidence that may be called scientific. Such evidence must depend wholly on the intellect, and must be the same for all. But we are not dealing here with uniformities, which alone can be the basis of science. but with personal beings where there may be, on one side, more or less power of vision according to the moral state, and, on the other. fuller or less full manifestation. Here we have, as I think an element not sufficiently taken into the account in what is said of the ground of the belief among men for the being of God. It seems wholly rational that He in whom we live and move and have our being may have ways of revealing his own being to us as our moral nature becomes quickened, so that while the direct knowledge of God may be to one man as the dim twilight, it may be to another as the clear shining of the noonday. pure in heart shall see God." To many in their favored moments, I have no doubt, the being and presence of God are as evident as that of the sun in the heavens, and far more vital while the same person may, perhaps, say at another time, "Oh that I knew where I might find him!" This is the scriptural view, and this alone accounts for the varying attitude of the human mind in regard to this belief. It shows the possibility of atheism through the torpidity or perversion of the moral powers, and makes a place for that judicial blindness of which the Scriptures speak: "If the light that is in you be darkness, how great is that darkness!" I suppose it may even become the darkness of atheism.

We have now found the ground on which we know the fact of our own existence and of its essential manifestations, on which we know the existence of matter, of our fellow-men, and of God. In speaking of these, some would call them grounds of belief rather than of knowledge. These terms are often used interchangeably in this connection, and perhaps unavoidably; but, as far as may be, knowledge should be used to indicate certainty, and belief a conviction based on a balance of probabilities in favor of what is believed, but falling short of certainty. For such beliefs, which are for the most part those with which

we are occupied in practical life, it remains to lay down certain rules that we may know what to believe, or at least on what grounds we may or may not, in any case whatever, found a rational belief.

First, then, we are not to believe, and cannot believe, a contradiction or an absurdity.

A contradiction may be made by two propositions mutually opposed, and then we cannot believe both, or by a single proposition that asserts the union of qualities that we know to be incompatible. We cannot believe that it both rains and does not rain at the same time and place, or that the same figure can be both round and square. From the imperfection of language it is not always easy to distinguish between a contradiction and a paradox. When the apostle Paul says of himself that he had nothing and yet possessed all things, it seems to be a contradiction, and yet there is a sense in which it was true. We need, therefore, before pronouncing a proposition to be a contradiction, to be sure that we fully understand its subject, and also that the words, in the connection in which they are used, are susceptible of but a single meaning. An absurdity is any proposition that is opposed either to a first truth or to a mathematical axiom or demonstration. No one can believe there can be a body that is not in space, or that the whole is not equal to the sum of its parts.

Second. We are not to believe a proposition unless it is more rational to believe it than not to believe it.

To the extent implied in this proposition I am a rationalist. Rationalist is a good name perverted. As now used it involves a claim by those who adopt it to be more fully guided by reason than others, and that we do not allow. I believe in reason. I say with Bishop Butler, "Let reason be kept to, but let not such poor creatures as we go on objecting against an infinite scheme that we do not see the necessity or usefulness of all its parts, and call this reasoning." I believe in the capacity and duty of reason to judge of the evidence for anything claiming to be a revelation from God. Also, that reason has the capacity to judge, and ought to judge, what is the meaning of anything thus claiming to be a revelation. But when anything has been accepted as a revelation and its meaning ascertained, then I hold that it is the business of reason, as reason, to believe it. This I

hold on the ground that confidence in the God who gave us our faculties ought rationally to be as great as in the faculties themselves. Certainly if we cannot trust him we cannot trust the faculties given by him. But this rationalism does not say, and I hold that in saying it we are more rational than rationalism. As some of old "professing themselves to be wise became fools," so we think that rationalists, professing themselves to be rational, become irrational.

Third. We are not to believe what we do not understand.

By this I mean that in order to assent to a proposition we must know its meaning, and also its application in the connection in which it stands. This may seem self-evident, but needs to be stated as a guard against nonsense and an indefiniteness that amounts to the same thing. Too often ignorance conceals itself and puts on an air of profoundness by the use of indefinite terms, or of terms in such relation that they convey no definite meaning. When Hegel says, and makes it the starting-point of his system, that "thought and being are identical," the words are familiar and the sentence is simple, but it conveys no meaning whatever to my mind. The terms are incongruous and the relation impossible, but the incongruity is concealed by the indefiniteness of that most indefinite of all terms, being, while the sentence has as little meaning as the proposition that a thought and a horse are identical, a horse being a particular form of being. So, too, when Mr. Herbert Spencer says that "life is a continuous adjustment of internal relations to external relations," and asks me if I believe that, I say to him that sight is the continuous adjustment of internal relations to external relations, and ask him if he believes that. The trouble with this definition, which is equally applicable to hearing, the boiling of water, and numerous other things, I suspect to be that it does not mean anything at all, and so can be neither believed nor The words are familiar, they are put together grammatically; and so they are when I say that internal relations are to external relations as four to six; but no one can get any meaning from them. If it be said that there is an adjustment of things to things, I understand what is meant; but I do not understand what is meant by an adjustment of relations to relations, nor yet, further, how an adjustment of these tenuous abstractions can constitute that, whatever it may be, which

distinguishes the vast realm of organized from unorganized being. Indeed, I do not understand what is meant by internal relations or external relations, unless it be the relations of internal and external things, and then the definition of life would be, A continuous adjustment of the relations of internal things to the relations of external things—a proposition which I am unable either to believe or to disbelieve. Passages of this kind might be given indefinitely. As now before me I will simply add the definition by Hegel of "the essence as such" as it is given by Schwegler—in a translation by President Seeley which secures its accuracy: "The essence as reflected being is the reference to itself only as it is a reference to something other." It would be a great gain if writings which claim to be philosophical and profound could be freed from this class of propositions.

Fourth, and positively. It is rational to believe on evidence facts the causes and mode of which we do not understand.

It is this that most persons mean, or suppose they mean, when they say they will not believe what they do not understand. This, however, is not said with reference to ordinary facts where there is simple ignorance, and perhaps invincible ignorance, of their causes and modes. The grass grows, but how and why we do not know. We know its concomitants, heat and moisture; but life, its vital cause, and the mode of its action, we do not know. Still, if we do not know how it grows, we know no reason why it should not grow, and this ignorance does not stand in the way of our believing the fact. By far the larger part of the facts which we accept, we accept before understanding their causes or modes; and indeed this is the natural order. It must be so. No one hesitates to accept the fact of an earthquake or the aurora borealis who simply knows the fact and nothing more.

But there are facts in connection with which the elements of wonder and mystery come in. These come in connection with facts which seem inconsistent with all we have previously known, so much so, perhaps, that we cannot even conceive of the cause or mode of them. To a child one thing is as wonderful and mysterious as another. He does not know enough to wonder. But when a course of nature has been recognized and anything occurs that is opposed to our experience, and so opposed that its cause and mode are inconceivable to us, we wonder, there is

mystery, and it is with reference to such events that many say they will not believe what they do not understand. But this cannot be rationally said, and is less said now than formerly. To any man, however cultivated, who lived fifty years ago, the cause and mode of a communication from New York to London in half a minute, or less, would be inconceivable, and yet he might have such evidence of the fact that it would be folly not to believe it. So it is in all cases of wonder and mystery. Any fact that is possible may have such evidence that it would be folly not to believe it, and the men who undertake to say, a priori, what facts are or are not possible in such a universe as this may find, as has happened in some signal instances, that the fact is accomplished while they are demonstrating its impossibility.

Fifth. Each of two propositions may be so supported by evidence that it may be rational to believe both, tho we cannot reconcile them with each other.

Two statements are made to a man not an astronomer. One is that the north star is fixed, and that, as he knows by observation, the pole of the earth either does or seems to point equally towards it at all seasons of the year, thus becoming the steady friend of the fugitive and the traveller. The other statement is that the earth moves in its orbit round the sun, its axis being parallel with itself, a hundred and eighty million of miles, the distance being measured in a straight line from one extreme point of the orbit to the other. But if this be true, the pole of the earth must be directed at one time in its orbit to a point in space a hundred and eighty million of miles distant from that to which it was directed at another point, and that would seem to render it impossible that it should either point, or seem to point, equally to one fixed point. With these two statements before him, what is the man to do? Is he to say, as I once heard a man who was so far forth a rationalist, say, "The astronomers are mistaken; the star moves, and its motion corresponds to that of the earth. It must be so"? Or is he to accept both statements as true on the testimony of astronomers, and suppose there may be an element in the case of which he is ignorant? In the broadest sense of the word rational, taking into view the strength of the testimony that might be brought, the limitation of his faculties, and his ignorance of the subject, it would be rational to accept both statements or facts and wait

till some one should explain to him the effect of distance on parallax, and then he would not only believe both facts, but see how they may be reconciled. This instance is taken from natural science, and others might be given; but occasions for the application of this rule are more frequent in connection with the truths of revelation. Men do not see the consistency of the foreknowledge, or purposes, or decrees of God with human freedom, and so, instead of seeking candidly for the evidence of each, they reject one or the other. They do not see the consistency of the doctrine of the trinity with the divine unity, and so they reject one or the other, more commonly that of the trinity, but sometimes, virtually at least, that of the unity. Coming up as we do from entire ignorance into a universe so vast and complex as this, we ought to expect—it is folly not to expect—that the evidence for single facts which are so removed from all we have known before as to be inconceivable by us. and also for each of two facts which we cannot reconcile with each other, may be such that the only rational course will be to accept the facts and leave the mode of the facts, and of their reconciliation, to the ampler knowledge of the future.

It is more especially in connection with the last two propositions that men say they will not believe what they do not understand, meaning by that that they will not believe a fact the mode of which they cannot conceive of, or which they are unable to reconcile with some other fact. But in saving this they fail to distinguish the processes of the mind when the question What? is asked from those when the question How? is asked. When the question What? is asked, the mind should be governed wholly by evidence. To this there is no limitation except the avoidance of contradiction or absurdity. Whoever is sure he so comprehends the whole subject that the fact or statement in question can be seen to involve a contradiction or an absurdity. cannot believe that statement or fact. Short of that he is to be governed wholly by the evidence. For everything that is possible evidence may be supposed that should convince a rational man, and he who would limit possibility by what he himself knows is far from being rational. But in strictness the term understand does not apply when we deal with evidence of what has been, or is, as it does when we inquire how it came to be. Was my house entered last night? Yes, I have evidence of it, and

know it from the absence of my overcoat and from tracks on the floor, but how it could have been entered I do not understand. If, then, we apply, as we should, the term know to evidence, and the term understand to modes and causes, there is a sense in which a man may properly say he will not believe what he does not understand. The fact that his house was entered he believes on evidence, and that evidence he knows. Of the mode of the entrance he knows nothing and believes nothing.

It ought to be added that if there be modes of being or of action in this universe that we do not share, it would not be rational or philosophical to suppose that we could even conceive of them, much less understand their modes or causes. This, as we all know, is true even of the senses. One originally destitute of the sense of sight in its rudimentary organs can have no conception of color, or of any of the modes or causes of the information conveyed by that sense; and so of all the senses. If, therefore, there be, as there may be and doubtless are, in angels or in God modes of being or perception which we do not share, the fact may be made known to us by testimony; but to suppose that we can conceive of or comprehend them would be opposed to the laws of thought.

If, now, my reader, you accept the grounds of knowledge we have discussed together, and also the rules for belief, I hope you will agree with me, first, that we have firm ground to stand on; second, that we give reason its full scope; and, third, that we may find rational ground for our belief in miracles and in mysteries, unless they can be shown to be contradictory or absurd, precisely as we find it for anything else.

But if we are to believe nothing that it is not more rational to believe than not to believe, what becomes of the conflict between reason and faith? There is no such conflict, there never was, and nothing but perverseness or a marvellous stupidity could have led to the supposition that there is. Faith—that is, the faith of the New Testament—is not simple belief. It is confidence in a person, and that confidence is never to be given except on rational grounds. We have thus a faith with the warmth and might of a feeling, and yet so begotten of reason and interpenetrated by it that they can never come into conflict.

THE PUBLIC SCHOOLS OF ENGLAND.

URING the last twenty years there has been throughout the civilized world so vital an interest in education that investigation, reform, and new methods are everywhere demanded. England and America have been concerned rather with the practical side of the science, while the Continent of Europe has been proving both theory and practice. In the hope of obtaining at no distant period strong foundations for schools preparatory to college and university work, there has been a general inquiry in the United States as to the merits of different European systems. Among other discussions in this field a distinguished writer has lately asked the question: Is the English Public School a model for Americans to imitate in similar educational establishments? The question, being put by an Englishman who is at the same time an enthusiast for Rugby as it was reformed under the administration of Dr. Arnold, is answered in the affirmative. Hughes finds it impossible to give an exact definition of that which he recommends to us, and contents himself with giving the names and a sketch of the constitution of a number of schools which are considered by the British public as coming under the somewhat vague designation of public school. His definition is substantially this: There are nine great boarding-schools in England which for centuries have been attended by the sons of the aristocracy and gentry before entering upon the life of the uni-They are graded, and give instruction in religion, Latin, Greek, mathematics, English, and, since the passage of the Endowed Schools Act, in natural science and modern lan-Their discipline is peculiar: the general government of the school is in the hands of the instructors, but its particular control during the time not occupied by class duties is entrusted to the highest form, and personal liberty in a wide sense is

granted to all the boys. The appointment of a head-master, the management of the finances, and the supreme direction are vested in a body of trustees called the governing board. There are upwards of thirty other schools which resemble these nine in some but not in all essentials. Their foundation is of recent date, or they are destined for the sons of other classes in the community, they give prominence in their course to the requirements of polytechnic or special government schools, they have no provision for poor boys on the foundation, or are mainly attended by day-scholars.

We cannot animadvert on Mr. Hughes because he was not able to mention certain names and say: These are the public schools of which we boast. Since the time of Dr. Arnold there has been in progress a radical reform as to methods of teaching and government in the school-system of England. The great collegiate institutions could no longer disregard the demands for improvement which characterized the expression of public sentiment, and, in the confusion of almost universal change, claims to the title of public school have been put forward by at least half of the forty and more establishments to which we have referred. There was no competent court to sit in judgment on these claims, and the difficulty of finding a categorical definition for the much-used term remains insurmountable. To find a firm basis for the discussion of the question whether the English public-school system can be transplanted to America is not easy. Even if we consider three or four of the most ancient corporations with such prestige as to make their place an unquestioned one, we shall find them in a transition state. The best expedient seems to be a general consideration of the constitution of one or more of the oldest and most famous endowed institutions as modified by the changes introduced through the Royal Commission appointed in 1861, and of some one sufficient representative of the modern schools with facilities for preparing boys not only for the universities but for professional and scientific pursuits. If we can discover the points which are typical and fairly characteristic of the great schools, no charge of unfairness can be made if we make no mention of minor individual peculiarities. We shall therefore speak of Eton, Winchester, and Rugby as being the most noteworthy among the old foundations. Clifton College, near Bristol, embodies in itself all the special features of the modern ones which of late years have come into existence as fully equipped, professed and successful rivals of their more famous sisters. These four seemed, for the reasons stated, worthy of particular attention when the writer, at the request of the president of Princeton College, spent two months of 1877 in the examination of the practical workings of the English and Scotch schools.

For boys who receive no assistance from the endowments the nominal annual charges at Eton are \$720, at Winchester \$545, at Rugby \$595, and at Clifton College \$540. Rugby extends the benefits of free tuition to upwards of sixty, and Clifton to a few, but Winchester and Eton each provide free instruction, board and lodging for at least seventy scholars, subject in Eton to an annual payment of ten and in Winchester of twenty guineas. These are the totals of the schedule fees, and do not seem exorbitant except at Eton, but they do not at all represent the necessary expense of keeping a boy at school. Extra charges are made for instruction in modern languages, any mathematics beyond the simplest, drawing, and fencing. fare at the boarding-houses is, as a rule, sufficiently abundant, but very simple, and it is the universal custom for each boy to provide for himself any luxury which he may desire. Add to these the support of games and a little pocket-money, and the extras will amount, at a moderate estimate, to not less than \$175. When we remember that the endowments of these institutions produce from \$30,000 to \$100,000 yearly, the sum of \$800 seems a large one to pay for the enjoyment of their privileges. all events, far the largest number of those in the United States whose birth and education prompt them to give a liberal training to their sons could not avail themselves of the advantages of any school, however fine, at such rates. There are doubtless many parents able and willing to pay even more than these prices, but they should not be required to do so. For the proof that a sound discipline both of body and mind is not necessarily accompanied by such an outlay of money we have only to look to some of our own older academies and colleges or such German gymnasia as Schulpforte near Naumburg and the Joachimsthal Alumnat in Berlin, which in their general arrangement resemble Eton and Winchester.

The distinguishing feature of English schools is the formal

control exercised by the older boys over the younger. This comprises the recognized right of the two highest classes, the sixth and upper fifth, to require certain menial services from the smallest boys, the power which is vested in the highest class of inflicting corporal punishment upon all boys below the upper fifth, and the exercise of other functions of restraint and protection which in other countries belong exclusively to the Fagging and the government of the school by prepostors or prefects, to use the jargon of the school-boys, have been the subjects of a bitter controversy between different classes of Englishmen for the last thirty-five years. In one or both of these two forms this tyranny of the strong over subjects who are willing in theory but rebellious in practice is to be met with as an integral part of the life of every public school. We in America wonder that there could be two opinions on such a subject, but as yet the advocates of the system have the best of the argument and remain in possession of the field. No one denies that bullying, brutality, and gross personal outrages and indignities are the too frequent outcome of the custom; that, in the case of feeble and delicate natures, impaired health and sometimes despair and suicide have resulted from the "management" of younger boys by older ones. "No one," says Mr. Staunton, "appears to know when, or under what circumstances, this law of might sprang up in our schools; but there is something so inconceivably wrong in permitting an elder boy to exercise over a younger one a tyranny no master dare practise over either, that it is surprising public opinion has not long since put the system down." On the other hand, the advocates of fagging claim that in return for his services the fag enjoys in the oversight of his senior security and protection from other annoyances, that the advice and supervision of a large boy are invaluable to a small one entering upon the strange life of a great school, and that these benefits cannot be had by any other device. They say that the prepostors or monitors who are about to enter upon the life of the world are rendered more capable and self-restrained by the duties which they are called on to perform, that they learn to measure the responsibilities of authority and weigh the force of public opinion, and that the lessons taught by their school-fellows in

this way are as important as those which they learn from their instructors. They point to periods in the history of certain schools as proof that a head-master of strong character and piety has in the system not only an instrument for good which can be wielded to advantage, but one whose equal has never yet been discovered in any other country.

Whatever may be the views of those most thoroughly committed on either side, it is certain that, in spite of the conservatism of the aristocracy and the opinions of many head-masters who were themselves once public-school boys, there is a growing public sentiment in England against any system which formally makes boys masters over boys. The twenty-ninth and thirtieth paragraphs of the General Recommendations of Her Majesty's Commissioners appointed to inquire into the revenues and management of certain colleges and schools are as follows: "The working of the monitorial system, where it exists, should be watched, and boys who deem themselves aggrieved by any abuse of it should be able at all times to appeal freely to the head-master. The power of punishment when entrusted to boys should be carefully guarded. The system of fagging should be likewise watched. Fags should be relieved from all services which may be more properly performed by servants, and care should be taken that neither the time which a little boy has for preparing his lessons nor the time which he has for play should be encroached upon unduly." These paragraphs, demanding that both monitors and fagging should be carefully watched, are a sufficient admission that both are dangerous to the well-being of the institutions where they exist.

There have occurred, however, within less than a decade two most flagrant instances of cruelty on the part of older boys toward younger ones, and these in the two schools where the system virtually originated. At Winchester one of the prefects "tunded" (Anglicé flogged) a small boy so severely as to render the sufferer an invalid for a period of months and make it doubtful whether he could ever return to his school duties. The peculiar instrument with which a Winton tunding is administered is, in their parlance, a ground-ash or ash-sucker, a rod two and a half to three feet long, about as thick as a man's forefinger, and of remarkable toughness and elasticity.

And but two years ago a little fellow in the Blue Coat school committed suicide in a fit of despondency which could be directly traced to the severity of the treatment which he had received from an older boy. The storm of invective and furious indignation which these two events aroused in the public mind will be long remembered by the readers of English newspapers. Such extreme cases are perhaps rare, but in all probability many similar ones are never heard of, and even the most enthusiastic advocates of the public schools as they have been and still are feel compelled in candor to relate the periods of dreariness and depression which constantly recur when the highest class is filled with boys too precocious to have the physical strength necessary for the requisite discipline or too indolent to control the bullies among their own number or in the class just Regard for the institutions of past ages and a below them. reverence for historical prestige are nothing less than a passion among the semi-monastic and collegiate schools and universities of England, and the survival of the fittest is a peculiarly English theory. If the civilization of our age has any chivalric meaning, it is that the weak are to be protected against the strong. There can be no doubt that eventually this sentiment will penetrate within the massive gates and cloistered recesses of even the oldest English schools and reform most thoroughly this remnant of the rule of might.

Boarders, not including the scholars and foundationers at Winchester and Eton, are entertained almost entirely on the Rugby plan. The head-master and certain of the chief classical and mathematical masters in each school are designated by the governing board as heads of houses. In these houses, which are attached to the residences of those who control them, the boys are furnished with food, a bed in one of several small dormitories, and a right to the whole or half of a small room for study. Breakfast consists of tea and coffee with bread and butter, dinner of meat and vegetables, sometimes accompanied by soup or pudding; tea is served shortly after dinner, and a supper of bread and cheese or cold meat closes the day. A halfpint of beer is often served at dinner or at supper, and sometimes at both. The numbers in each house range from forty to eighty, being generally under fifty. The beds are very

simple, and are ranged in dormitories in recesses separated from each other by partitions about five feet high. An average study is about seven feet square, furnished as the means of the occupants permit. At Eton each boy has a room to himself which is both study and bedroom, except that brothers are almost invariably put together in the same room, as they are in the same study at other schools. Harrow has a number of "small houses," with accommodations for six or seven boys, where, by the payment of some two hundred dollars more than the average yearly price of board, boys are virtually taken into the master's family. But in general an excessive freedom from magisterial supervision prevails out of school-hours, and the boarders are left entirely to their own will and the control of the "prefects" and of tradition. The strong hold of this system where it already obtains and its gradual spread are explained by this fact. The estimated profit on each boarder is from \$100 to \$125, and accordingly the income from profit on board for the head-masters of Winchester, Harrow, and Rugby is \$10,000. \$6300, and \$6385 respectively, and that of the lower masters in all the schools is in the same proportion. The boys do not complain of the quantity of the fare, but, as we have already said, the quality and variety are always largely supplemented from their pocket-money, and the pastry-cooks, sausage-makers, and confectioners in the neighborhood of the great schools thrive accordingly.

There remains still another point which characterizes all the great endowed schools, with regard to which there may certainly be two opinions—namely, the excess of examination. There are examinations for admission, class examinations, and examinations for promotion held by the masters themselves, frequent visits from examiners appointed by the universities, and "once in every year an examination of scholars by an examiner or examiners appointed for the purpose by the governors and paid by them, but otherwise unconnected with the school." Dr. Wiese states that there came under his observation a printed schedule of examination which appointed for the period between the 17th of June and the 22d of July no less than forty-four examinations for one class. "The iron of examination which has entered into the soul of the nation was

forged at Oxford and Cambridge." The business of the English school-master is likely to degenerate into setting hard questions for boys whose aim is to have their names published in class-lists as successful crammers. There is always an examination or a preparation for one in progress, and in the extended system of examining there is laid upon the school a burden of expense, upon the master a burden of wrong and vexation, and upon the boys the burden of learning by rote much material which they do not assimilate, and which they rapidly forget as soon as the occasion for using it is past. The effect upon the master is disastrous. The old methods of patient explanation and thorough teaching are falling into desuetude, and in their place is growing up a forcing system both in classical and mathematical instruction which may answer to a certain degree for the latter, but which succeeds admirably in bringing the study of the classics into general disrepute. Let us carefully avoid this extreme of over-examination. Our colleges in the first two years of their course do a portion of the work done in the upper classes of English schools. It is their duty to furnish a rigid course of instruction in the humanities without regard to a student's destination, unless America is to provide no general culture for her youth. Such provision can only be made through the resources of abundant endowments, and these our schools do not as yet possess. The training of the mind in these years is of incalculable importance to the young men themselves and to the country, and can only be properly done by the attention of a mature instructor to the individual requirements of his scholars. Such attention is difficult to secure, but surely the end is more nearly attained by a system of close oral questioning and answer combined with a running commentary from the teacher than by the constant recurrence of written trials in mental gymnastics. Written examinations have an unquestioned place in the school economy, but their function is merely a final test of ripeness. A constant employment of them defeats its own aim. They lack the element of personal contact necessary for instruction, and they cannot, if frequent, be sufficiently severe to afford trustworthy proof of proficiency. The old simile of a child's garden where the plants are rooted up every third day to see if they are growing is full of food for reflection.

It was said for many years that colleges produced a set of hollow-chested, nervous, consumptive graduates, who were totally unfit for the wear and tear of a rude, jostling world. The charge was reiterated until it was believed, and accordingly a new element has been introduced into school-life, both here and in England, namely, the systematic fostering of games and gymnastic exercises. The attention paid to this part of the "curriculum" by teachers and taught affords unlimited material to the casual newspaper jester and to those who sneer at liberal training and plead for something which they call practical education. What would be said by these cavillers if we should attempt to introduce the compulsory support of games into American schools? In England every boy is not only made to pay but also to play, and in Eton I have seen a class of lads as carefully and severely examined in swimming as in Homer. Cricket, foot-ball, fives, tennis, and, if possible, boating are carefully provided for. Expensive playing-grounds and courts for the various sports are maintained by the school-corporation and supported by an indirect tax upon each boy. Direct taxes pay for the bats, balls, and other essentials of out-door exercise. But little attention is paid to regular instruction in in-door gymnastics. The climate is so mild that there are very few days when shelter is absolutely necessary, and the place of a gymnasium is supplied as far as possible by rifle-corps and military drill. The training of the body is considered by a large majority of the masters in the great endowed schools as of equal importance with the training of the mind, and there is a sentiment far from insignificant that in the rearrangement of work a larger portion of the day should be devoted to out-door sport than to in-door work. You will be told that England needs in the sons of her gentry men of action rather than men of mere studious habits. The Duke of Wellington is said to have remarked that the battle of Waterloo was won on the playing-fields of Eton. A repetition of this sentiment will almost certainly be a part of the answer to any question as to the share of time and attention which a school-boy should give to play.

There is on the other hand much which seems worthy of imitation in the constitution of the public schools of England. It is unfortunately the hardening process, cropping out in all

the different points of policy on which we have touched, which is most frequently held up to admiration. If we cannot grow enthusiastic over these methods, whatever may be thought of the end itself, there are other characteristics which we would do well to mark. The age and social rank of their teachers is altogether different from that of the instructors in most of our classical schools. There is not as yet a recognition of teaching as a distinct profession in England any more than here, but the belief, prevalent in Germany since the time of F. A. Wolf, that it is just as individual and separate a calling as any of the other learned professions, and requires as distinct and extended a training as the pursuit of medicine, law, or theology, gains ground daily. Many men whose chosen avocation was the church, and who, as the great majority of teachers in America outside of New England still do, regarded school-teaching only in the light of a ready means of financial recuperation, have recognized the dignity of the employment into which chance threw them and devoted their lives to it. The splendid emoluments of masters in the great schools have, however, always attracted high-class men, while those of head-masterships are prizes which secure the highest ability and earnestness. The head-master at Winchester receives \$15,000; at Eton, \$22,500; at Harrow, \$20,000; and at Rugby and Clifton, from \$15,000 to \$20,000. The average income of the under-masters, who are heads of houses, is about \$5000, the variation being between \$2500 and \$7500. Such rewards attract strong men, and in this fact lies the main strength of the whole system; but admitting this truth, the endowments are so large and productive that these sums could still be realized without imposing such terms as those we have mentioned upon parents, if only all sinecures were abolished. "The head-master is the school." He gathers around him men who are in perfect sympathy with him. First-rate men do first-rate work and make a recognized place for themselves in society. Their pupils regard them as their superiors, not as equals or inferiors, and there is no necessity for that constant self-assertion and constraint which do so much to destroy the cordiality between teachers and pupils in the United States. Appointments to place are made nominally by the board of governors or trustees, but in reality by the

head-master's influence. There is no political favoritism or governmental interference. Some of the wisest English writers on the subject deplore this, but whether an extended system of governmental control, such as exists in Germany, would be feasible and advisable in Great Britain or not, our own history and traditions will compel us to follow the English example in this respect. The politicians who govern us so much to their own advantage must never be permitted to lay hands upon our schools if we are to have any deserving the name.

As to the methods of instruction in English public schools, we have not much to learn from them except in one direction. The classical teaching which characterizes the best New England academies will leaven the whole system of similar high-schools which are yet in posse in the United States, and it will not suffer by comparison as regards drill, accuracy, and mental training with English teaching. But there is one point in which they excel us. Together with all that we cultivate, they prize and inculcate a living acquaintance with the spirit of the classics. They read, note, and compare more than we do, with reference to the spirit of the text. The translation of idiomatic English into idiomatic Latin or Greek is an altogether different pursuit from that turning of half-digested English into a mould of grammatical English-Latin which we dignify by the name of Latin prose composition; the latter finds little or no place in an English school: the turning of real English into Latin-English, preparatory to the final step of producing a real Latin equivalent, forms the best incentive to a careful and accurate reading of Latin classics. I have heard repeatedly, during recitations on Cicero, Virgil, Horace, Sophocles, and other Greek and Latin authors, questions such as: Cite another passage in this author where a similar idea is expressed. Who else has said the same thing with greater force, and where? Has any English writer made this thought his own, and in what words? How then may we best convey the same notion in the English idiom? Such questions were not only asked, but answered by the repetition in the original of from three to ten lines word for word from the passage cited. Material gained in this way is afterwards employed in the composition of original Latin or Greek themes in which the aim is not to express English thoughts and idioms in

Latin or Greek words, but to convey ideas harmonious with the spirit of those languages in a becoming garb. Of course it is only the best minds which really profit by this mode of procedure, but the whole system of English education is not to do the greatest good to the greatest number, but to cherish the best minds, to give every opportunity to real ability for elegant culture and distinction. Not that the boy of average strength or the dullard fares badly; by no means: if he can pay his way he is pushed along through school and college and permitted to take his place in society as a gentleman, but the fact that he has taken a degree deceives no one in the belief that he is necessarily a scholar. The gifted few are not sacrificed to the common multitude, and there seems to be no systematic fostering of mediocrity simply because of negative goodness and harmlessness.

The aim of English schoolmasters has changed within the last century. They are no longer fitly characterized by the Westminster boy's translation of arma virumque cano, arms and a man with a cane. Their effort is not to beat a certain quantity of Latin and Greek into the dullest head, or punish with severity the slightest offence against decorum. They believe that boys who possess ability must be well taught, and in particular thoroughly examined, but that the main benefit in school-life for all must come from the formation of character and the cultivation of manliness. Everything is sacrificed to this end. Traditions empty and antiquated are cherished for the culture of a national self-confidence, a very large part of the school-day is given up to out-door sports and games as a means of producing coolness of temper and establishing health, the younger boys are fagged that the older may learn to govern and the fags to obey, and as far as possible the life of the school is made an epitome of the life of the nation in order that it may produce a small and chosen aristocracy of scholars if possible, but before all else a body of self-reliant, sturdy Englishmen, full of admiration for queen and country and loyal to church and state. If a boy give promise of becoming a Christian gentleman, the aim of the largest and most influential schools is reached. Mr. Staunton admits that "they neither furnish the best moral training nor the best mental discipline, nor the most salutary and substantial mental enrichment. They do not form the most accomplished

scholars or the most heroic, exalted, and disinterested men, but they are the theatres of athletic manners and the training-places of a gallant, generous spirit for the English gentleman. This is the highest merit claimed for them by the warmest and most discerning of their admirers."

It would be easy, if it were necessary, to show how the historical development of these great institutions is interwoven with that of the nation to which they belong. They are intensely conservative, and have been again and again outstripped by the progress of the English people, but the history of the nation is their history and its life is their life. If we are to have strong, influential, stable American academies, the same will be true of them in their relation to this nation. We cannot adopt the system of any other country or transplant an English public school, a French lyceum, or a German gymnasium to American soil. Two experiments of this sort have already been made within the century. Mr. Bancroft's school at Round Hill was founded on German models with every apparent chance for success, but he abandoned it in a few years. The excellent and successful institution at Concord in New Hampshire preserves much of the English stamp which was impressed on it at the beginning as regards externals, but in spirit and practice it is thoroughly democratic and American. The more catholic and careful our examination of foreign schools the more successful will be our results, but our method must be eclectic. We should emulate the English pedagogic in infusing more of the humanistic spirit into our teaching of the classics, our masters should be strong and gentle to produce genuine love and respect in their pupils, and we should certainly place a higher estimate on Christian character than on mere critical knowledge. worthy aims, but we must reach them through our own methods. We cannot tolerate fagging or the recognition of the right of older boys to inflict punishment on younger ones, nor can we afford the fearful risk of sacrificing feeble natures in the slough of school-boy morality that the strong may grow yet stronger and more independent in the absence of a rigid magisterial oversight.

But there are several other features in the English schools which seem well worthy of consideration. Hours of private tuition in which the regular masters assist one or more boys in the preparation of the tasks set in the recitation-rooms by themselves or their colleagues were not originally contemplated as a part of the systematic work of any class. The practice originated, I believe, at Eton, and has gradually spread through other institutions, being generally recognized as a fertile and useful It is a legitimate source of additional income to the teacher, and its effect on boys of average or low ability is beneficial in a marked degree. Even to the strongest it conveys a knowledge of that art the most useful to all students and the most hidden from many of them, the art of studying, while in the class-room a greater uniformity in preparation enables the instructor to avoid the common waste of time spent in explaining to one boy trifling points which are perhaps clear to all the others. If the system were so arranged with us that every boy would find in his private tutor a mentor in morals and religion and a general guardian, even greater benefits would arise from it.

The exhibitions and scholarships at the universities which are the prizes bestowed upon leaving scholars seem well fitted to strengthen the school. These are simply sums of money varying from fifty to four hundred dollars or more, payable annually to the incumbent during the three years of his university course. They are sometimes furnished from the funds of the school itself, less frequently from those of the affiliated college at the university. Prizes, generally in the form of books, are bestowed so lavishly throughout the whole course in most English schools that there is a real danger lest boys should forget to study for the sake of study, but these substantial aids to further progress in scholarship are worthy of a struggle. They have been the ladder on which many of the greatest Englishmen have climbed to eminence in church and state. Our schools are as yet too feeble for such munificence, and it seems like mockery to recommend such a magnificent example to them. process might well be reversed in America. Our colleges constantly complain of the preparatory academies, and their greatest effort is to scold the teachers into elevating the standard of preparation. Why should they not offer more substantial aid than mere advice, and say to some half-dozen of the schools which stand in the closest relationship to them: "We will give to a certain proportion of each class you send us material aid. We will give your first boy tuition, the use of a room, of our

library and our gymnasium, and to the others similar assistance in proportion to their scholarship and character." If the princely benefactors of our colleges would furnish the requisite funds to either schools or universities for such prizes, it would be productive of the greatest benefit in advancing polite learning and the cause of secondary education in this country.

Finally, let us regard with merited admiration the wealth of beauty which nature and art have united to bestow upon so many of the institutions which we have been considering. chester, Eton, Harrow, and Rugby have been able for centuries to keep the seats of their first foundations and maintain their growth by reason of the loveliness and healthfulness of their The Charter-house, so familiar to us all in Thackeray's memories of it, has already been driven from London into the country. Westminster and St. Paul's both languish in numbers and reputation, and will probably soon follow. The paying public is wise in its generation, and the sons of anxious mothers will be sent to seek all the advantages which the diversified and healthy amusements and occupations of the country afford to growing boys. Winchester College is the fairest as it is the oldest of all the great schools. From its constitution all the others have gleaned more or less of their manners and customs, although it has felt and yielded in time to the influences of its daughters in many respects. Wise as William of Wykeham showed himself to be in the body of aphoristic laws and mottoes which he imposed upon his school, he was still wiser in the site which he chose and the magnificent buildings to the erection of which he gave the impulse. You may still read upon the college arms that "Manners makyth man;" you may still behold upon the school-house wall "the painted mitre and crozier, the rewards of clerical learning; a pen and inkhorn and a sword, the insignia of civil and military pursuits; and a long Winton-rod, typifying the punishment of those too indolent to devote themselves either to study or to active life"-each emblem with its appropriate legend: Aut Disce; Aut Discede; Manet Sors Tertia Cædi. There, too, is the Tabula legum Pædagogicorum with its quaint Latinized directions for the boys' behavior, "In templo, in scholâ, in Aulâ, in atrio, in cubiculo, in oppido ad montem, in omni loco et tempore." The old school-room is deserted, the ethics and learning of which it is a type have given place to

widely different ones, and the old monastic regulations have been modified or have passed away. The wise founder would with difficulty recognize in the hundreds of merry, stalwart, athletic boys who swarm in "chapel-yard" and "meads" his seventy serge-clad scholars with their prim habits and grave demeanor. But the essentials of the school-life have not passed away. The grand old Gothic chapel, the shady and retired cloisters, the spacious refectory, the whole substantial and beautiful pile of the school-buildings, the wisely-invested foundations, and the breezy playing-grounds are still there. The sparkling Itchen still winds by the town, the hoary cathedral still invites to prayer and meditation, St. Catherine's Hill still offers itself for healthful rambles, and the chalky downs are still the haunts of all the forms of life which give such zest to "amateur poaching" and long country walks.

This is not the place to institute a comparison between the scenery of the mother-country and our own. Nature has been as lavish in her gifts to America as to England, but to be enjoyed she must be sought. Of all the lessons which we can learn from a consideration of the influence and power of British schools as they are, that of a careful choice of site is the most important. Our academies must be within easy reach of the centres of population, near a thrifty town if possible, but especially amid the delights of real country. Traditions will grow up in schools. We cannot disregard them, but we can mold them, and every mollifying influence which can be brought to bear upon the abnormal life of a school-boy is a clear gain. period of probation for the active duties of the world should be a time of regular growth, as free as possible from over-work and over-excitement. No steady progress can be expected without quiet and freedom from distraction. By all means let us, at least for the greater part of the year, separate our boys from the excitement of city life, from the whirl of city streets, from the news-stands and the dangerous associations of promiscuous It is part of a liberal education to associate with beauty, whether in nature or in art, and as we cannot yet enjoy the fulness of the latter, at least let us prize and use the gifts of the former.

THE HISTORICAL PROOFS OF CHRISTIANITY.

SECOND ARTICLE: THE MIRACLES.

THE reader will bear in mind that we are reasoning for the present on the basis of the view respecting the origin of the gospels which is commonly taken by critics of the sceptical school. Let it be assumed that one or more of the gospels resulted from an expansion of earlier documents, which included a less amount of matter; that the traditions which are collected in the gospels of the canon are of unequal value, and that all of these books first saw the light in their present form somewhere in the course of the second century. Still it is maintained that, even on this hypothesis, the main facts at the foundation of the Christian faith can be established. In this article I propose to bring forward evidence to prove that miracles were wrought by Jesus substantially as related by the evangelists.

I. The fact that the apostles themselves professed to work miracles by a power derived from Christ makes it highly probable that they believed miracles to have been wrought by him.

The point to be shown is that narratives of miracles performed by Christ were embraced in the accounts which the apostles were in the habit of giving of his life. A presumptive proof of this proposition is drawn from the circumstance that they themselves, in fulfilling the office to which they were appointed by him, professed to work miracles, and considered this an indispensable criterion of their divine mission. There is no doubt of the fact as here stated. Few scholars now hold that the Epistle to the Hebrews was written by Paul. Some follow an ancient opinion, which Grotius held, and to which Calvin was inclined, that Luke wrote it. Others attribute it to Barnabas. Many are disposed with Luther to consider Apollos its author. It is a question which we have no occasion to discuss here. The date of the Epistle is the only point that concerns us at present. It was used by Clement of Rome in his Epistle to the Corinthians, and therefore must have existed as early as A.D. 67. A majority of critics, including adherents of opposite creeds in theology, infer from passages in the epistle itself that the temple at Jerusalem was still standing when it was written.1 Hilgenfeld, the ablest representative of the Tübingen school, is of opinion that Apollos wrote it before A.D. 67.2 Be this as it may, its author was a contemporary and acquaintance of the, apostles.3 Now he tells us that their supernatural mission was confirmed by the miracles which they did: "God also bearing them witness, both with signs and wonders, and divers miracles, and gifts of the Holy Ghost." ' The same thing is repeatedly asserted by the Apostle Paul. "Working miracles among you" is the phrase which he uses when speaking of what he himself had done in Galatia. If we give to the preposition, as perhaps we should, its literal sense "in," the meaning is that the apostle had imparted to his converts the power to work miracles.6 In the Epistle to the Romans he explicitly refers to "the mighty signs and wonders" which Christ had wrought by him: it was by "deed" as well as word that he had succeeded in convincing a multitude of brethren.7 How, indeed, we might stop to ask, could such an effect have been produced at that time in the heathen world by "word" alone? But in the Second Epistle to the Corinthians he reminds them that miracles-"signs and wonders and mighty deeds"-had been wrought by him before their eyes; and he calls them "the signs," not of an apostle, as the authorized version has it, but of "the apostle." They are the credentials of the

¹ See Heb. viii. 3, ix. 4, vii. 9.

⁸ Heb. ii. 3.

⁵ ἐνεργῶν δυνάμεις ἐν ὑμῖν, Gal. iii. 4.

⁷ Rom. xv. 18-20.

² Einl. in d N. Test. p. 388.

⁴ Ibid. ver. 4.

⁶ Cf. Lightfoot, and Meyer, ad loc.

^{8 2} Cor. xii. 12.

apostolic office. By these an apostle is known to be what he professes to be. In working miracles he had exhibited the characteristic marks of an apostle. The author of the book of Acts, then, goes no farther than Paul himself goes when that author ascribes to the apostles "many wonders and signs." It is in the highest degree probable, in the light of the passages. quoted from Paul, that if he and Barnabas were vindicating themselves and their work, they would declare, as the author of Acts affirms they did, "what miracles and wonders God had wrought among the Gentiles by them." Now we advance another step. In each of the first three gospels the direction to work miracles forms a part of the brief commission given by Christ to the apostles. If the apostles could remember anything correctly, would they forget the terms of this brief, momentous charge from the Master? This, if anything, would be handed down in an authentic form. In the charge when the apostles were first sent out, as it is given in Matthew, they were to limit their labors to the Jews-to "the lost sheep of the house of Israel." They were not even to go at that time to the Samaritans. This injunction is a strong confirmation of the exactness of the report in the first evangelist. Coupling the known fact that the working of miracles was considered by the apostles a distinguishing sign of their office, with the united testimony of the first three gospels—the gospels in which the appointment of the Twelve is recorded—it may be safely concluded that Jesus did tell them to "heal the sick, cleanse the lepers, raise the dead, cast out devils." . He told them to preach and to verify their authority as teachers by this merciful exertion of powers greater than belong to man. Is it probable that he expected them to furnish proofs of a kind which he had not furnished himself? Did he direct them to do what they had never seen him do? Did he profess to communicate to his apostles a power which he had given them no evidence of possessing?

II. Injunctions of Jesus not to report his miracles, it is

¹ Acts ii. 43, cf. iv. 30, v. 12, xiv. 3. ² Acts xv. 12, cf. ver. 4.

³ Matt. x. 1, 8; Mark iii. 15; Luke ix. 2 (cf. Luke x. 9).

evident, are truthfully imputed to him; and this proves that the events to which they relate actually took place.

It is frequently said in the gospels that Jesus enjoined upon those whom he miraculously healed not to make it publicly known.1 He was anxious that the miracle should not be noised abroad. For instance, it is said in Mark that in the neighborhood of Bethsaida he sent home a blind man whom he had cured, saying, "Neither go into the town, nor tell it to any in the town." The motive is plainly indicated. Jesus had to guard against a popular uprising, than which nothing was easier to provoke among the inflammable population of There were times, it costs no effort to believe, when they were eager to make him a king.3 He had to conceal himself from the multitude. He had to withdraw into retired It was necessary for him to recast utterly the popular conception of the Messiah, and this was a slow and almost impossible task. It was hard to educate even the disciples out of the old prepossession. Hence he used great reserve and caution in announcing himself as the Messiah. He made himself known by degrees. When Peter uttered his glowing confession of faith, Jesus charged him and his companions "that they should tell no man of him"-that is, they should keep to themselves their knowledge that he was the Christ.' The interdict against publishing abroad his miracles is therefore quite in keeping with a portion of the evangelic tradition that is indubitably authentic. On the other hand, such an interdict is a thing which it would occur to nobody to invent. It is the last thing which contrivers of miraculous tales (unless they had before them the model of the gospels) would be likely to imagine. No plausible motive can be thought of for attributing falsely such injunctions to Jesus, unless it is assumed that there was a desire to account for the alleged miracles not being more widely known. But this would imply intentional falsehood in the first narrators, whoever they were. Even this supposition, in itself most unlikely, is completely shut out, because the

¹ Matt. ix. 30, xii. 16, xvii. 9; Mark iii. 12, v. 43, vii. 36, viii. 26, ix. 9; Luke v. 14, viii. 56.

² Mark viii. 56. ³ John vi. 15. ⁴ Mark viii. 30; Luke ix. 21.

prohibitions are generally said to have proved ineffectual. Tt is commonly added in the gospels that the individuals who were healed of their maladies did not heed them, but blazed abroad the fact of their miraculous cure. Since the injunctions imposing silence are authentic, the miracles, without which they are meaningless, must have been wrought. It is worthy of note that when the maniac of Gadara was restored to health, Jesus did not lay this commandment on him. He sent him to his home, bidding him tell his friends of his experience of the mercy of God. Connected with the parratives of miracles. both before, and just after in the same chapter,2 we find the usual charge not to tell what had been done. Why not in this instance of the madman of Gadara? The reason would seem to have been that in that region where Jesus had not taught, and where he did not purpose to remain, the same danger from publicity did not exist. To be sure, the man was not told "to publish it in Decapolis," as he proceeded to do, but no pains were taken to prevent him from doing this. He was left at liberty to act in this respect as he pleased. The evangelist does not call our attention in any way to this peculiarity of the Gadara miracle. It is thus an undesigned confirmation of the truth of the narrative, and, at the same time, of the other narratives with which the injunction to observe silence is connected.

III. Cautions, plainly authentic, against an overestimate of miracles are a proof that they were actually wrought.

No one who falsely sets up to be a miracle-worker seeks to lower the popular esteem of miracles. Such an one never rebukes the wonder-loving spirit. The same is equally true of those who imagine or otherwise fabricate stories of miracles. The moods of mind out of which fictions of this kind are hatched are incompatible with anything like a disparagement of miracles. The tendency will be to make as much of them as possible. Now the gospel records represent Christ as taking the opposite course. "Except ye see signs and wonders ye

¹ Mark v. 19.

⁹ Mark iii, 12, v. 43,

will not believe." This implies that there were higher grounds of faith It is an expression of blame. "Believe me that I am in the Father, and the Father in me; or else believe me for the very works' sake." 2 That is, if you cannot take my word for it, then let the miracles convince you. It would almost seem that Christ performed his miracles under a protest. He refused to do a miracle where there was not a germ of faith beforehand. In the first three gospels there is the same relative estimate of miracles as in the fourth. If men form an opinion about the weather by the looks of the sky, they ought to be convinced by "the signs of the times"—in which, if the miracles are included, it is only as one element in the collective manifestation of Christ.3 When the seventy disciples returned full of joy that they had not only been able to heal the sick, but also to deliver demoniacs from their distress '-which had not been explicitly promised them when they went forth-Iesus sympathized with their joy; he beheld before his mind's eye the swift downfall of the dominating spirit of evil, and he assured the disciples that arther miraculous power should be given to them. But he added, "Notwithstanding, in this rejoice not, that the spirits are subject unto you; but rather rejoice because your names are written in heaven." They were not to be elated by the supernatural power exercised, or to be exercised, by them. They were not to make it a ground of self-congratulation. These statements of Jesus, be it observed, for the reasons stated above, verify themselves as authentic. And they presuppose the reality of the miracles.

IV. Teaching of Jesus v it h is evidently genuine is inseparable from certain miracles. In other words, the miracles cannot be dissected out of teaching and incidents with which they are connected in the narrative. A few illustrations will prove this to be the case.

(1) John the Baptist, being then in prison, sent two of his disciples to ask Jesus if he was indeed the Messiah. A doubt

¹ John iv. 48. ² John xiv. 11. ³ Matt. xvi. 3.

⁴ Such is the force of the καὶ (in the καὶ τὰ δαιμόνια, etc.), Luke x. 17.

⁵ Matt. xi. 4; Luke vii. 22.

had sprung up in his mind. This is an incident which nobody would have invented. In proof of this it is enough to say that there has been an effort of commentators, who have caught up a suggestion of Origen, to explain away the fact. It has been conjectured that the message was probably to satisfy some of John's doubting disciples. There is not a word in the narrative to countenance this view. It is excluded by the message which the disciples were to carry from Christ to John: "Blessed is he whosoever shall not be offended in me!" That is, blessed is the man who is not led to disbelieve because the course that I take does not answer to his ideal of the Mes-There is no reason to think that John's mind was free from those more or less sensuous anticipations concerning Christ and his kingdom which the apostles, even after they had long been with Jesus, had not shaken off. He had foretold that the Messiah was to have a "fan in his hand," was to "gather his wheat into the garner," and to burn up the chaff.1 He was perplexed that Jesus took no more decisive step, that no great overturning had come. Was Jesus, after all, the Messiah himself, or a precursor? If, in his prison there, the faith of John for the moment faltered, it was nothing worse than was true of Moses and Elijah the greatest of the old proph-The commendation of John which Jesus uttered in the hearing of the bystanders, immediately after he had sent back the disciples, was probably designed to efface any impression derogatory to the Baptist which might have been left on their This eulogy is another corroboration of the truth of the narrative. The same is true of his closing words: "Notwithstanding, he that is least n the kingdom of heaven is greater than he." They suggest the limit of John's insight into the nature of the kingdom. It is an unquestionable fact, therefore, that the inquiry was sent by John. Nor is it denied that Jesus returned the following answer: "Go and show John again those things which ye do hear and see: the blind receive their sight, and the lame walk, the lepers are cleansed, and the deaf hear, the dead are raised up, and the poor have

the Gospel preached to them." The messengers were to describe to John the miracles which Jesus was doing-Luke expressly adds that they themselves were witnesses of them—and to assure him that in addition to these signs of the Messianic era which Isaiah had predicted,1 to the poor the good news of the speedy advent of the kingdom were proclaimed. message of Jesus had no ambiguity. It meant what the evangelists understood it to mean. The idea that he was merely using symbols to denote the scriptural effect of his preaching is a mere subterfuge of interpreters who cannot otherwise get rid of the necessity of admitting the fact of miracles. sort of satisfaction would it have given John, in the state of mind in which he then was, to be assured simply that the teaching of Jesus was causing great pleasure and doing a great deal of good? The same, or almost as much, he knew to be true of his own preaching. What he needed to learn, and what he did learn from his messengers, was that the miracles of which he had heard were really done, and to be reminded of their significance.

(2) The gospels record several controversies of Jesus with over-rigid observers of the Sabbath. They found fault with him for laxness in this particular. On one occasion he is said to have met a reproach of this kind with the retort, "Which of you shall have an ass or an ox fallen into a pit, and will not straightway pull him out on the Sabbath day?" 2 It has been said of the books written by the companions of Napoleon at St. Helena, that it is not difficult to mark off what he really said, his savings having a recognizable style of their own. They who maintain that a like distinction is to be drawn in the Gospels among the reported sayings of Christ have to concede that he uttered the words above quoted. They are characteristic words. Even Strauss holds that they were spoken by him. so, on what occasion? Luke says that it was on the occasion of Christ's healing a man who had the dropsy. There must have been a rescue from some evil. The evil must have been a very serious one; otherwise the parable of the ox or the ass

falling into a pit would be out of place. What more proof is wanted of the correctness of the evangelic tradition, and thus of the miracle? On another Sabbath he is said to have cured a woman who, from a muscular disorder, had been bowed down for eighteen years. His reply to his censors is equally characteristic.¹ If the reply was made, the miracle that occasioned it was done. On still another occasion of the same kind he added to the illustration of a sheep falling into a pit the significant question, "How much, then, is a man better than a sheep?"² If he uttered these words, then he healed a man with a withered hand. Unless he had just saved a man from some grievous peril, the question is meaningless.

(3) In Matthew, Mark, and Luke, it is related that Jesus was charged by the Pharisees with casting out demons through the help of Beelzebub their prince.3 The conversation that ensued upon this accusation is given. Jesus exposed the absurdity of the charge. It implied that Satan was working against himself, and for the subversion of his own kingdom: "If an house be divided against itself, that house cannot stand." 4 The conversation is stamped with internal marks of authenticity. The fact of this charge having been made against Christ was inwrought into the evangelic tradition. Now the occasion of the debate was the cure of a man who was blind and dumb. The reader may consider demoniacal possession to be a literal fact, or nothing more than a popular idea or theory: in either case the phenomena—epilepsy, lunacy, etc. —were what presented themselves to observation. It may be said that the Jews had exorcists. Jesus implies this when he asks, "By whom do your children"—that is, your disciples— "cast them out?" Yet the cures of this sort which were effected by Christ must have included aggravated cases of mental and physical disorder, or they must have been wrought with a uniformity which distinguished them from similar relief administered by others through the medium of prayer and fasting. There was an evident contrast between the power exerted by him in such cases, and that with which the Pharisees were

¹ Luke xiii. 15.

⁹ Matt. xii. 12.

³ Matt. xii. 22-31; Mark iii. 22-31; Luke xi. 14-23.

⁴ Mark iii. 25.

acquainted. This is implied in the astonishment which this class of miracles is represented to have called forth. It is implied also in the fact that the accusation of a league with Satan was brought against him. They had to assert this or else admit that it was "with the finger of God" that he cast out devils. "He commanded the unclean spirits, and they obeyed him."

- (4) We find both in Matthew and Luke a passage in which woes are pronounced against certain cities of Galilee for remaining impenitent.2 There is no reason for doubting that they were uttered by Jesus. There is a question as to the time when they were uttered, unless it be assumed that they were spoken on two different occasions; but that chronological question is immaterial here. The authenticity of the tradition is confirmed, if confirmation were required, by the mention of Bethsaida and Chorazin. No account of miracles wrought in these towns is embraced in either of the gospels.3 Had the passage been put into the mouth of Jesus falsely, there would naturally have been framed a narrative to match it. would have stood in connection with it a description, briefer or longer, of miracles alleged to have been done in those towns. Moreover, "in that same hour," according to the first gospel, Jesus uttered a fervent thanksgiving that the truth, hidden from the wise, had been revealed to the simple-hearted4-a passage that needs no vindication of its authenticity. This outpouring of emotion is a natural sequel to the sorrowful impression made on him by the obduracy of the Galilean cities. Luke there is the same succession of moods of feeling, although the juxtaposition of the two passages is not quite so close. Now what is the ground of this condemnation of Capernaum, Chorazin, and Bethsaida? It is "the mighty works" which they had witnessed. This privilege makes their guilt more heinous than that of Tyre and Sidon. It is the reference to the miracles which gives point to the denunciation.
 - (5) In connection with one miracle there is instruction as to

¹ Luke xi. 20. ² Matt. xi. 20-25; Luke x. 13-16.

³ The Bethsaida of Mark viii. 22 was another place, north-east of the Lake.

⁴ Matt. xi. 25-28.

its design, which it is difficult to believe did not emanate from It is imbedded in the heart of the narrative, as it was an essential part of the transaction.1 He is in a house at Capernaum surrounded by a crowd. A paralytic is brought by four men, and is let down through the roof, this being the only means of bringing him near Jesus. Seeing their faith, he said tenderly to the paralytic, "Son (or child) be of good courage; thy sins are forgiven thee." The disease, we are led to infer, was the result of sin, it may be of sensuality. The sufferer's pain of heart Jesus first sought to assuage. It was the first step toward his cure. These words struck the scribes who heard them as blasphemous. Jesus divined their thoughts, and asked them which is the easier to say, "Thy sins be forgiven thee," or "Arise and walk?" If one presupposed divine power, so did the other. Then follows the statement: "That ye may know that the Son of Man hath power on earth to forgive sins"-here he turned to the paralytic-"Arise, take up thy bed, and go unto thine house." The entire narrative is replete with the marks of truth; but this one observation, defining the motive of the miracle, making it subordinate to the higher end of verifying his authority to grant spiritual blessings, carries in it evident marks of authenticity. Did not Jesus say this? he did, he performed the miracle.

V. The fact that no miracles are attributed to John the Baptist should convince one that the miracles attributed to Jesus were actually performed.

In the gospels John is regarded as a prophet inferior to no other. His career is described. Great stress is laid on his testimony to Jesus. Why, then, are no miracles ascribed to him? They would have served to corroborate his testimony. If there was a propensity in the first disciples or their successors to imagine miracles where there were none, why are no fabrications of this sort interwoven with the story of John's preaching? They had before them the life of his prototype, Elijah, and the record of the miracles done by him. What (except a

¹ Mark ii. 10; cf. Matt. ix. 6; Luke v. 24.

regard for truth) hindered them from mingling in the story of the forerunner of Jesus occurrences equally wonderful? Why do we not read that one day he responded to the entreaty of a poor blind man by restoring his sight; that on another occasion he gave back to a widow the life of her son; that at a certain time a woman who had been for years a helpless invalid was immediately cured by a word from the prophet; that the diseased were often brought to him by their friends to be healed? The only answer is that the gospel narratives are not the product of imagination. They give the events that actually took place.

VI. It is equally difficult for sceptical criticism to explain why no miracles are ascribed to Jesus prior to his public ministry. Why should the imagination of the early Christians have stopped short at his baptism? Why did not fancy run back, after the manner of the apocryphal fictions, over the period that preceded? A definite date is assigned for the beginning of his miraculous agency. Fancy and fraud do not curb themselves in this way.

VII. The persistence of the faith of the apostles in Jesus as the Messiah, and of his faith in himself, admits of no satisfactory explanation when the miracles are denied.

How were the apostles to be convinced that he was the promised, expected Messiah? What were the evidences of it? He took a course opposite to that which they expected the Messiah to take. He planned no political change. He enjoined meekness and patience. He held out to them the prospect of persecution and death as the penalty of adhering to him. Where was the national deliverance which they had confidently anticipated that the Messiah would effect? How intangible, compared with their sanguine hopes, was the good which he sought to impart! Moreover, they heard his claims denied on every side. The guides of the people in religion scorned or denounced them. Had there been no exertions of power to impress the senses, and the mind through the senses, it is incredible that the apostles could have believed in him, and

have clung to him in the teeth of all the influences fitted to inspire distrust. We might ask how Jesus himself could have retained immovable the conviction that he was in truth the Messiah of God, if he found himself possessed of no powers exceeding those of the mortals about him. How could he have maintained this consciousness, without the least faltering, when he saw himself rejected by rulers and people, and at length forsaken by his timid disciples?

Strauss is, on the whole, the most prominent disbeliever in modern times who has undertaken to reconstruct the gospel history, leaving out the miracles. His theory was that the narratives of miracles are a mythology, spontaneously spun out of the imagination of groups of early disciples. But what moved them to build up so baseless a fabric? What was the idea that possessed the mind and gave birth to its unconscious fancies? Why, at the foundation of it all was the fixed expectation that the Messiah must be a miracle-worker. The predictions of the Old Testament and the example of the prophets How was it, then, that, in the absence of this indispensable criterion of the Messianic office, these same disciples believed in Jesus? How came he to believe in himself? To these questions the author of the mythical theory could give no answer which does not subvert his own hypothesis. The same cause which, by the supposition, led to the imagining of miracles that were false must have precluded faith except on the basis of miracles that were true.

VIII. In the evangelical tradition the miracles enter as potent causes into the nexus of occurrences. They are links which cannot be spared in the chain of events.

Take, for example, the opening chapters of Mark, which most critics at present hold to be the oldest gospel. There is an exceedingly vivid picture of the first labors of Jesus in Capernaum and its vicinity. His teaching, to be sure, thrilled his hearers: "He taught as one having authority." But the intense excitement of the people was due even more to another

cause. In the synagogue at Capernaum a demoniac interrupted him with loud cries, calling him "the Holy One of God." At the word of Jesus, after uttering one shriek, the frenzied man became quiet and sane. The mother of Peter's wife was raised from a sick-bed. Other miraculous cures followed. It was the effect of these upon the people that obliged him to rise long before dawn, in order to anticipate their coming, and to escape to a retired place for prayer. It was a miracle wrought upon a leper that compelled Jesus to leave the city for "desert places"—secluded spots where the people would not throng upon him in so great numbers.' Very definite occurrences are traced to particular causes, which are miraculous acts done by Christ. It was the raising of Lazarus that determined the Jewish rulers to apprehend Jesus and put him to death. The fact that this event, in a record which contains so many unmistakably authentic details, is the point on which the subsequent history turns, forced upon Rénan the conviction that there was an apparent miracle—something that was taken for a miracle—and this conviction he has not been able to persuade himself absolutely to relinquish.2

The miracle at Jericho, which is described with some diversity in the circumstances by three of the evangelists, Keim finds it impossible to resolve into a fiction. He refers to the fact that all of the first three gospels record it. He adverts to the fresh and vivid character of the narratives. But the main consideration is the explanation afforded of the rising tide of enthusiasm in the people at this time, of which there is full proof. But Keim, still reluctant to admit the supernatural, alludes to the popular excitement as quickening "the vital and nervous forces," and so restoring the impaired or lost vision of the man healed. It is intimated that this access of nerveforce, coupled with his faith, may have effected the cure.3 It is found necessary to revert to a method of explanation which German criticism had long ago tested and discarded. point which concerns us here is the reality of the transaction as it appeared to the spectators. The physiological solution may

Mark i. 35, v. 45.
 "Vie de Jésus" (13me. ed.), pp. 507, 514.
 "Gesch. Jesu von Nazara," vol. iii. p. 53.

pass for what it is worth. If cures had been effected in this way by Jesus, there would have been conspicuous failures as well as instances of success; and how would these failures have affected the minds of the disciples and of other witnesses of them, not to speak of the mind of Jesus himself? The resurrection of Jesus, more than any other of the miracles, bridges over an otherwise impassable chasm in the course of events. We see the disciples, a company of disheartened mourners. Then we see them on a sudden transformed into a band of bold propagandists of the new faith, ready to lay down their lives for it. The resurrection is the event which accounts for this marvellous change, and for the spread of Christianity which follows. But this event requires to be more thoroughly considered.

IX. The proof of the crowning miracle of Christianity, the resurrection of Jesus, cannot be successfully assailed, even were the views of the sceptical school as to the origin of the gospels well founded.

As we stand for the moment on common ground with them, we cannot make use of such an incident as the doubt of Thomas and the removal of it, although this incident, as well as various other portions of the fourth gospel, may be historical, even if not John but a later author wrote the book. An uncertainty is thrown over circumstances relating to the intercourse of the disciples with Jesus after his death, which are found in the gospels. That is, prior to establishing the genuineness of the gospels, it is open to question how far the details are faithfully transmitted from the witnesses. But as regards the cardinal fact of the gospel, we have precious evidence from an unimpeachable source. The Apostle Paul states with precision the result of his inquiries on the subject.2 There were five interviews of the disciples with the risen Jesus, besides the miracle on the journey to Damascus. Paul was converted A.D. 35, four years after the crucifixion. In A.D. 38 he went to Jerusalem, and stayed a fortnight with Peter. He was conversant with the apostles and other disciples. He knew what their

¹ John xx. 24-30.

testimony was. From his explicit statement, and from other perfectly conclusive evidence, it is certain that the first of the supposed appearances of Christ to the disciples was on the morning of the next Sunday after his death. It was on "the third day." Then it was that they believed themselves to have irresistible proof that he had risen from the tomb. Ever after. this was the principal fact which they proclaimed, the main foundation of their faith and hope. The question is, Were they or were they not deceived? Is the Church founded on a fact or on a delusion? Did Christianity, which owes its existence and spread to this immovable conviction on the part of the apostles, spring from either a fraud or a dream? The notion which once had advocates, that Christ did not really die, but revived from a swoon, is given up. How could he have gone through the crucifixion without dying? What would have been his physical condition, even if a spark of life had remained? If he did not die then, when did he die? Did he and the apostles agree to pretend that he had died? The slander of the Jews, that some of the disciples stole his body, is not deserving of consideration. Why should men make up a story which was to bring them no benefit, but only contempt, persecution, and death? The question what became of the body of Iesus is one which disbelievers in the resurrection do not satisfactorily answer. It is not doubted that the tomb was found empty. Jewish adversaries had the strongest reason for producing the body if they knew where it was. That would have destroyed the apostles' testimony in a moment.

The only hypothesis which has any plausibility at the present day, in opposition to the Christian faith, is the "vision-theory." The idea of it is that the apostles mistook mental impressions for actual perceptions. Their belief in the resurrection was the result of hallucination. Some would hold that Christ really manifested himself to them in a miraculous way, but to their souls only: he did not come to them visibly and tangibly. Of this theory, especially in the first form, it is to be

¹ I Cor. xv. 4; cf. Matt. xvi. 21, xvii. 23, xx. 19, xxvii. 63, xxviii. 1; Mark viii. 31, ix. 31, xiv. 58, xv. 29, xvi. 2, 9; Luke ix. 22, xiii. 32, xviii. 33, xxiv. 1, 7, 21, 46; John ii. 19, xx. 1, 19, 26.

said that responsibility for the delusion supposed comes back upon the founder of Christianity himself. Whoever thinks that the disciples were self-deceived, as Schleiermacher has well said, not only attributes to them a mental imbecility which would make their entire testimony respecting Christ untrustworthy, but he implies that when Christ chose such witnesses he did not know what was in man. Or, if Christ willingly permitted or led them to mistake an inward impression for actual perceptions, he is himself the author of error, and forfeits our moral respect. But the vision-theory is built up on false assumptions, and signally fails to explain the phenomena in the case. I shall not here pause to examine the affirmation of Paul that he had personally seen Christ. This must be observed, that he distinguishes that first revelation of Christ to himwhich stopped him in his career as an inquisitor, and made him a new man in his convictions and aims—from subsequent "visions and revelations." They were separated in time. It was not on them that Paul professed to found his claim to be an apostle. He refers to them for another purpose. The words that he heard in a moment of ecstasy—whether "in the body or out of the body" he could not tell—he never even repeated.3 That sight of Jesus, which was the prelude of his conversion, he gives as the sixth and last of his appearances to the apostles. It was objective, a disclosure to the senses. It was such a perception of Christ that his resurrection was proved by it—a fact with which the resurrection of believers is declared to be indissolubly connected.4 Attempts have been made to account for Paul's conversion by referring it to a mental crisis induced by secret misgivings and leanings toward the faith which he was striving to destroy. Some have brought in a thunder-clap or a sunstroke to help on the effect of the struggle supposed to be taking place within his soul. One trouble with this psychological explanation of the miracle is that the assumption of previous doubts and of remorseful feelings is not only without historical warrant, but is directly in the teeth of Paul's own

¹ "Christlicher Glaube," vol. ii. p. 88. ² 2 Cor. xii. 1; 1 Cor. ii. 10.

³ I Cor. xii. 4; cf. Keim, vol. iii. p. 583, n. I. ⁴ I Cor. xv. 12-21.

assertions.1 It is not true, however, that Paul implies in the least that the appearances of the risen Christ to the other apostles were exactly similar to Christ's appearance to him on the road to Damascus. His claim was simply that he, too, had seen Christ. The circumstances might be wholly different in his Iewish Christians who were hostile to Paul made a point of the difference between his knowledge of Christ through visions and the sort of knowledge vouchsafed to the other The risen Christ whom these saw did not speak to apostles. them from heaven. They believed him to be with them on the earth. He had not yet ascended. His real or supposed presence in the body with them was an essential part of what they related. Without it, the whole idea of the ascension was meaningless. We might go further and say that, in the absence of decisive proof to the contrary, it is to be presumed that the accounts which the apostles were in the habit of giving of their interviews with the risen Jesus-facts so immeasurably important to themselves and others—are substantially preserved in the gospels. Why should it be doubted that at least the essential nature of these interviews, or of their impression of them, about which the Apostle Paul had so particularly inquired, is set forth by the four evangelists?

But the details in the gospel narratives we leave out of account for the present. The main facts indisputably embraced in the testimony of the apostles are sufficient. There are criteria of hallucination. If there were not, we should on all occasions be at a loss to know when to credit witnesses, or even to trust our own senses. We have to consider, in the first place, the state of mind into which the apostles were thrown by the crucifixion. It was a state of extreme sorrow and dejection. They were struck with dismay. Their hopes were crushed. Whoever has seen the dead Christ in the famous painting of Rubens at Antwerp can imagine the feeling of the disciples when they looked on the terrible reality. How was it possible for them within a few days—within two days, in the case of some, if not of all—to recover from the shock? How was it

¹ Before discussing fully the subject of Paul's conversion, it is requisite to examine the question of the authorship and credibility of the Acts.

possible that in so short a time joy took the place of grief and consternation? Whence came the sudden revival of faith, and with it the courage to go forth and testify, at the risk of their own lives, that Jesus was indeed the Messiah? The glowing faith, rising to an ecstasy of peace and assurance, out of which hallucination might spring, did not exist. The necessary materials of illusion were absolutely wanting. There was no long interval of silent brooding over the Master's words and worth. The time was short—a few days. Even then there are no traces of any fever of enthusiasm. The interviews with the risen Christ are set down in the gospels in a brief, calm way, without any marks of bewildering agitation. No! the revulsion of feeling must have come from without. The event that produced it was no creation of the apostles' minds. It took them by surprise. Secondly, the number and variety of the persons—five hundred at once—who constitute the witnesses heightens the difficulty in the way of the hallucination-theory. Under circumstances so gloomy and disheartening, how were so many persons—comprising, as they must have comprised, all varieties of temperament—transported by the same enthusiasm to such a pitch of bewilderment as to confound a mental image of Christ with the veritable, present reality? But, fourthly, a greater difficulty lies in the limited number of the alleged appearances of Jesus, considering the state of mind which must be assumed to have existed if the hallucination-theory is adopted. Instead of five, the number of those known to Paul, there would have been a multitude. This the analogy of religious delusions authorizes us to assert. If the five hundred collectively imagined themselves to see Christ, a great portion of them would individually, before and after, have imagined the same thing. The limited, carefully marked, exactly recollected number of the appearances of Jesus is a powerful argument against the theory of illusion. Fifthly, connected with this last consideration is another most impressive fact. was a limitation of time as well as of number. The appearances of Jesus, whatever they were, ceased in a short period. Why did they not continue longer? There were visions of one kind and another afterward. Disbelievers point to these as a

proof of the apostles' credulity. Be this as it may, the question recurs, Why were there no more visions of the risen Jesus, to be placed in the same category with those enumerated by Paul? Stephen's vision was of Christ in the heavenly world. In the persecutions recorded in Acts, when martyrs were perishing, why were there no Christophanies? There is not a solitary case of an alleged actual appearance of Jesus on the earth to disciples, after the brief period which is covered by the instances recorded by Paul and the evangelists. There were those distinct occurrences, standing by themselves, definitely marked, beginning at a certain time, ending at a certain time—so many, and no more.

We know what the mood of the apostles was from the time of these alleged interviews with the risen Christ. about the work of preaching the gospel of the resurrection, and of founding the Church. There was no more despondency, no more faltering. It is undeniable that they are characterized by sobriety of mind, and by a habit of reflection, without which indeed the whole movement would quickly have come to an The controversies attending the martyrdom of Stephen were not more than two years after the death of Jesus. Then followed the mission to the Jews and to the heathen, the deliberations respecting the position to be accorded to the Gentile converts, and the whole work of organizing and training the churches. To be sure, they claimed to be guided by the divine Spirit. Light was imparted to them, from time to time, through Take what view one will of these phenomena, it is plain that, on the whole, a discreet, reflective habit characterized the apostles. This is clear enough from the Acts, and from the epistles, on any view respecting the credibility of these books which critics are disposed to take. reasonableness and sobriety belonged to the apostles from the first, or it did not. If it did, it excludes the supposition of that abandonment to dreamy emotion and uninquiring revery which the hallucination-theory implies. If it did not, then it behoves the advocates of this hypothesis to tell what it was that suddenly effected such a change in them. What broke up on a sudden the mood of excitement and flightiness which engendered notions of a fictitious resurrection? How was a band of religious dreamers, not gradually but in a very short space of time, transformed into men of discretion and good sense? Why did these devotees not go on with their delicious dreams, in which they believed Jesus to be visibly at their side? The sudden, final termination, without any outward cause producing it, of an absorbing religious enthusiasm, like that which is imputed to the apostles and to the five hundred disciples, is without a parallel in the history of religion.

It is the force of these considerations which compels Keim to give up the illusion-theory. "It must be acknowledged," he says, "that this theory, which has lately become popular, is only an hypothesis that explains some things, but does not explain the main thing—nay, deals with the historical facts from distorted and untenable points of view." " "If the visions are not a human product, not self-produced; if they are not the blossom and fruit of a bewildering over-excitement; if they are something strange, mysterious; if they are accompanied at once with astonishingly clear perceptions and resolves, then it remains to fall back on a source of them not yet named: it is God and the glorified Christ." Thus the cessation of the visions at a definite point can be accounted for. The extraneous power that produced them ceased to do so. It was, in truth, the personal act and self-revelation of the departed Jesus. Without this supernatural manifestation of himself, to convince his disciples that he still lived in a higher form of being, his cause would in all probability have come to an end at Faith in him as Messiah would have vanished, the disciples would have gone back to Judaism and the synagogue, and the words of Jesus would have been buried in the dust of A powerful impression, not originating in themselves, but coming from without, from Christ himself, alone prevented this catastrophe. The admission of a miracle is fairly extorted from this writer by the untenableness of every other solution that can be thought of. At the end of a work which is largely taken up with attempts, direct or indirect, to

¹ "Gesch. Jesu von Nazara," vol. iii. p. 600.

P. 602.

P. 605.

disprove supernatural agency, Keim finds himself driven by the sheer pressure of the evidence to assert its reality, and to maintain that the very survival of Christianity in the world after the death of Jesus depended on it. If he still stumbles at the particular form of the miracle which the testimony obliges us to accept, yet the miracle of a self-manifestation of Jesus to the apostles he is constrained to presuppose.

On a question of this kind historical evidence can go no farther. When it is declared by a large number of witnesses who have no motive to deceive, that a certain event took place before their eyes, and when the circumstances forbid the hypothesis of self-deception, there is no alternative but to admit the reality of the fact. The proof is complete. The fact may still be denied by an unreflecting incredulity. It may be affirmed to be impossible, or to be under any circumstances incapable of proof. Against such a position, testimony, historical proof of any sort, is powerless. The immovable faith of the apostles that Jesus "showed himself alive to them" is a fact that nobody questions. Without that faith Christianity would have died at its birth. Whoever denies credit to their testimony ought to explain in some rational way the origin, strength, and persistence of that faith. But this, as experiment has proved, cannot be done.

X. The concessions which are extorted by the force of the evidence from the ablest disbelievers in the miracles are fatal to their own cause.

At the beginning of this century the theory of Paulus, the German Euemerus, was brought forward. It was the naturalistic solution. The stories of miracles in the New Testament were based on facts which were misunderstood. There were actual occurrences, but they were looked at through a mist of superstitious belief, and thus misinterpreted and magnified. Jesus had a secret knowledge of potent remedies, and the cures which he effected by the application of them passed for miracles. The instances of raising the dead were cases of only apparent death. For example, Jesus saw that the son of the widow of Nain was not really dead. Perhaps the young man opened his

eyes or stirred, and thus discovered to Jesus that he was alive. Jesus mercifully saved him from a premature burial. He did not think himself called upon to correct the mistaken judgments of the disciples and of others, who attributed his beneficent acts to preternatural power. He allowed himself in a tacit accommodation to the vulgar ideas in these matters. This theory was seriously advocated in learned tomes. It was applied in detail in elaborate commentaries on the gospels.

Strauss simply echoed the general verdict to which all sensible and right-minded people had arrived when he scouted this attempted explanation of the gospel narratives, and derided the exegesis by which it was supported. The theory of Paulus made the apostles fools and Christ a Iesuit. hypothesis which Strauss himself brought forward, if less ridiculous, was not a whit more tenable. Unconscious myths generated by communities of disciples who mistook their common fancies for facts; myths generated by bodies of disciples cut off from the care and oversight of the apostles who knew better; by disciples who, nevertheless, succeeded in substituting in all the churches their fictitious narrative in the room of the true narrative which was given by the apostles-here were improbabilities which prevented the mythical theory from gaining a foothold at the bar of historical criticism. It was impossible, as it has been remarked above, to see how the faith of the mythmaking division of disciples was produced at the start. No such class of disciples, cut off from the superintendence of the apostles, existed. If it be supposed that such a class of disciples did exist, the agents who planted Christianity in the towns and cities of the Roman Empire were not from these, but were the apostles and their followers. And then, how could the established tradition as to Christ's life be superseded by another narrative, emanating from some obscure source, and presenting a totally diverse conception from that which the apostles or their pupils were teaching? So the mythical theory went the way of the naturalistic scheme of Paulus. Seeing his failure, Strauss afterward tried to change the definition of myth, and to introduce an element of conscious invention into the idea; but in so doing he destroyed the work of his own hands.

Rénan has undertaken, in a series of volumes, to furnish upon the naturalistic basis an elaborate explanation of the origin of Christianity. In the successive editions of his "Life of Jesus" he has considered and reconsidered the problem of the miracles. What has he to say? He tells us that miracles at that epoch were thought indispensable to the prophetic vocation. The legends of Elijah and Elisha were full of them. was taken for granted that the Messiah would perform many.1 Jesus believed that he had a gift of healing. He acquired repute as an exorcist.² Nay, it is undeniable that "acts which would now be considered fruits of illusion or hallucination had a great place in the life of Jesus." The four gospels, he holds, render this evident. Rénan sees that there is no way of escaping the conclusion that miracles seemed to be wrought, and that they were a very marked feature in the history as it actually occurred. Those about Jesus—the entourage—were probably more struck with the miracles than with anything else. How shall this be accounted for? Illusion in the mind of Jesus. an exaggerated idea of his powers, will go a little way toward a solution of the question, but does not suffice. It must be held that the part of a thaumaturgist was forced on Jesus by the craving of disciples and the demand of current opinion. He had either to renounce his mission or to comply. His miracles were "a violence done him by his age, a concession which a pressing necessity wrested from him." 6 There were miracles, or transactions taken for miracles, in which he consented "to play a part." He was reluctant; it was distasteful to him, but he consented. Then come M. Rénan's apologies for Jesus. Sincerity is not a trait of Orientals. We must not be hard upon deception of this sort. We must conquer our "repugnances." "We shall have a right to be severe upon such men when we have accomplished as much with our scruples as they with their lies." In that impure city of Jerusalem, Jesus was no longer himself. His conscience, by the fault of others, had lost its original clearness. perate, pushed to the extremity, no longer master of himself.

^{1 &}quot;Vie de Jésus," p. 266, cf. p. 271. 2 P. 273. 8 P. 277.

⁴ P. 269. ⁵ P. 267. ⁶ P. 279. ⁷ P. 513.

Death must come to restore him to liberty, to deliver him from a part which became every hour more exacting, more difficult to sustain.¹

In plain English, Jesus was an impostor—unwillingly, yet really and consciously. From enthusiasm it went on to knavery; for pious fraud, notwithstanding M. Rénan's smooth deprecation, is *fraud*. The Son of Man sinks out of sight, with his conscience clouded, his character fallen. M. Rénan's excuses for him are themselves immoral. Even his apologies for Judas are less offensive.

This defamation of Jesus is for the infidel theory a reductio The wise and good of all ages are told that their veneration is misplaced. Jesus was not the "holy one." There is nothing even heroic in him. He is swept away by a popular current, giving up his rectitude, giving up his moral discrimination. He is made up in equal parts of the visionary By his moral weakness he brings himself and the deceiver. into such an entanglement that to escape from it by death is a piece of good fortune. He to whom mankind have looked up as to the ideal of holiness, turns out to be first a dreamer, then a fanatic and a charlatan. It is proved that a clean thing can come out of an unclean. Out of so muddy a fountain there has flowed so pure a stream. Courage, undeviating truth, steadfast loyalty to right against all seductions, in all these Christian ages have sprung from communion with a dishonest man who obeyed the maxim that the end justifies the means. For no gloss of rhetoric can cover up the meaning that lies underneath M. Rénan's fine phrases. When the light coating of French varnish is rubbed off, it is a picture of degrading duplicity that is left.

This is the last word of scientific infidelity. Let the reader mark the point to which his attention is called. On any rational theory about the date and authorship of the gospels, it is found impossible to doubt that facts supposed at the time of their occurrence to be miraculous were plentiful in the life of Jesus. The advocates of atheism are driven to the hypotheses

^{1 &}quot;Vie de Jésus," p. 375.

of hallucination with a large infusion of picus fraud. There is no fear that such a theory will prevail. No being could exist with the heterogeneous, discordant qualities attributed by Rénan to Christ. Were such a being possible, the new life of humanity could never have flowed from such a defiled source.

The arguments which this paper contains will not convince an atheist. One who denies that God is a personal being is in direct proportion to the force of his conviction debarred from believing in a miracle. He will either seek for some other explanation of the phenomena, or leave the problem unsolved. Secondly, these arguments, it is believed, separately taken. are valid; but they are also to be considered together. . Their collective strength is to be estimated. If the single rod could be broken, the same may not be true of the bundle. Thirdly, it is not to be forgotten that demonstrative reasoning on questions of historical fact is precluded. He who requires a coercive argument where probable reasoning alone is applicable. must be left in doubt or disbelief. In the strongest conceivable case of probable reasoning, there is always a possibility of the opposite opinion being true. Enough that reasonable doubt is excluded.

GEORGE P. FISHER.

CHRISTIAN MORALITY, EXPEDIENCY, AND LIBERTY.

THERE is an expediency which is the hand-maid of rectitude. There is another which usurps its place and tramples it in the dust. When the high-priest Caiaphas said, referring to Christ, "It is expedient for us that one man die for the people, and that the whole nation perish not" (John xi. 50), this is the climacteric instance of the latter kind. Without inquiry or concern in regard to his guilt or innocence, it was made the ethical basis of the crime of crimes, the crucifixion of the Lord of glory. Such expediency has been the great justification of the slaughter of the innocents in all ages. It was this that drenched Paris in blood in the days of the Revolution and the Commune. But the former kind of expediency has a rightful and necessary place in sound ethics. That place is carefully and even philosophically defined in the New Testament by one justly styled the "philosophic apostle."

In I Corinthians x. 23, Paul declares to us, "All things are lawful for me, but all things are not expedient: all things are lawful for me, but all things edify not." In chapter vi. 12, we find the same words with a change of the last clause: in place of "all things edify not," it reads, "but I will not be brought under the power of any." It is hardly necessary to say that the "all things" mentioned as being "lawful" do not mean "all things" in the most absolute sense of all beings or acts in the universe, actual or possible, but all things of the class of which he was speaking; i.e., all actions which in themselves are morally indifferent. The actions that in this sense are permissible, or lawful in themselves to be done or abstained from, according as they are or are not for edification, are innumerable.

They become right or wrong according as circumstances do or do not render them conducive to edification, to the glory of God, the advancement of his church, and the welfare of man. To this class belong the species of actions which the apostle has in view in his ethical discussions in Romans xiv, and I Corinthians viii., ix., and x. They are such as eating herbs or meat that had been offered in sacrifice to idols; keeping days and rites prescribed in the Jewish ceremonial. As concerns actions of this kind, "All things are lawful, but all things are not expedient, because they edify not." There is another class of actions that fall not under this category, which are never lawful and may never be done. Such is everything prohibited in the decalogue. Otherwise, what is lawful is not lawful. Paul never meant such an absurdity. Contrariwise, in the practical parts of his epistles he is constantly reaffirming them, and putting them not only on the ground of natural, but of Christian obligation as well, and this alike with regard to the God-ward and man-ward part of the decalogue. Witness his injunctions of piety towards God, insomuch that he insists that all things be done as to the Lord and to his glory, while he enjoins, in forms the most varied and explicit, parental fidelity and love; filial obedience and reverence; regard for the sacredness of life; chastity, industry, honesty, veracity, fidelity; avoidance of all acts or feelings antagonistic to other men's just rights, privileges, and possessions. The actions thus respectively commanded and forbidden are morally good or evil in themselves. No circumstances can alter their nature or annul the obligation to do the one and shun the other. Not only does this stand in all its force as an original law of nature, written alike on tables of stone and in the natural conscience, but its obligation is enhanced by every new relation and motive of the Gospel. That there is such a thing as intrinsic moral good and evil, which no circumstances of supposed expediency can make otherwise, which cannot be set aside by any alleged tendency to promote good arising from their violation, he clearly teaches when he repels, with indignant denunciation of its authors, the charge that Christians act upon the abominable maxim of "doing evil that good may come," and declares their "damnation just" (Rom. iii. 8). There is moral evil then, that remains immutably such, no matter what good may be effected or intended by doing it. When any principle of truth or righteousness was involved, the apostle was the last man to countenance the remotest deviation from, or shortcoming in adhering to it. When piety, veracity, profaneness, or fraud are involved, one might as well measure them by the yardstick, or seek their market value, as ask, Are they expedient? Paul rarely rises to a more superlative intensity of expression than in the outburst, "Tho we or an angel from heaven preach any other gospel unto you than that we have preached unto you, let him be accursed" (Gal. i. 8). Tho persecutions unto death awaited him for his fidelity to truth as it is in Jesus, yet when this was at stake he was inflexible, and, in the face of terrors which stagger humanity, he could say, with a heart dauntless and serene, "None of these things move me."

Now, of the things lawful in the sense of being morally indifferent per se, he says, all are not expedient, which raises the question, mooted from the very beginnings of ethical science and controversy, What is the place of expediency as in any way the foundation of morality, of moral obligation, and as a guide to moral action? On a right adjustment of its true sphere, beyond all doubt, depends the possibility of a true theory of ethics, or a true code of practical morals. In answer, it is quite safe to say that true principles on this subject are as rational as they are Scriptural. They are as adequately set forth and reasoned out by Paul, in the places already indicated, as if he were giving us a complete chapter on the right use of things indifferent, in a formal treatise on Christian ethics.

Before proceeding further, it is to be observed that this inquiry covers the whole distinction between positive and moral laws. Positive law cannot go beyond the domain of expediency. It is applicable only to actions to which expediency is applicable; *i.e.*, to actions *per se* indifferent. No positive law can annul a moral law. It can, however, make actions not in themselves morally binding, become so, when enacted by a competent law-giver. It is not within the prerogative of positive law to authorize worship of more Gods than one, or the practice of blasphemy or perjury. Nor is a positive law enjoining acts adiaphorous in their own nature, rightfully enacted unless, in the circumstances, the performance of such actions tends to good.

So, as moral laws are immutable and irrepealable, positive laws admit of repeal, suspension, or modification, when required by the interests to promote which they were enacted. Of this character are the police laws and regulations, indeed the larger part of all the legislation, of states. When warrantable, they must be adopted for the promotion of righteous ends; but changing circumstances require a constant change of laws for the most effectual furtherance of the same ends. Nearly all have recognized the positive character of the Jewish ceremonial laws in contrast to the decalogue—the former being liable to abrogation, and actually vanishing away at the coming of Christ; the latter so perfect and immutable, that sooner shall the heavens pass away than one jot or tittle thereof shall fail. The moral and religious truths and interests subserved by these ceremonies abide. The means of promoting them are changed with changing circumstances. Circumcision and the passover give way to the Christian sacraments, all being alike "signs and seals of the righteousness of faith." The hard ritual observance of the Jewish Sabbath disappears with the other ceremonial regimen of that economy. The true rest from worldly distractions by a joyous rest in God, under an economy of greater liberty, is best atained by sloughing off integuments which once protected, but longer continued, would hamper, its power for good. It would sacrifice the true well-being of man to a stiff outward ceremony, the very end of the Sabbath to a mere outward form, so reversing the law that "the Sabbath was made for man, not man for the Sabbath."

The subjects of the controversies and divisions which led Paul to make his deliverances to the Roman and Corinthian Christians had reference in part to the sacred days of the Jews, regarded as still being such by some Jewish Christians, while not so in fact, nor so regarded by the more enlightened converts. But these days having been constituted sacred by positive statute, ceased to be such with the cessation of the law and the reasons for it—cessante ratione cessat lex.

Many persons confound the positive with the moral law, and argue as if each were equally subject to revocation or exception, not merely by the mere fiat of the law-giver, but at the behest of strong personal sentiment. As if a ruler could be equally

entitled to obedience in enjoining idolatry, imposing an incometax, or making a police regulation. Something of this sort displays itself in that passionate but brilliant outburst of Jacobi in his letter to Fichte, which seems to sink ordinary morality in a super-sublimated sentimentality:

"Yea, I am that atheist, and that godless person who, contrary to the will which wills nothing, will lie like the dying Desdemona; will lie and deceive like Pylades representing himself as Orestes; will murder like Timoleon; will be a law and oath breaker like Epaminondas and John de Witt; will resolve on suicide like Otho; rob the temple like David—yea, will pluck ears of corn on the Sabbath for this reason only, that I am hungry, and the law was made for man and not man for the law. I am that godless person, and despise the philosophy which therefore calls me godless, despise it and its very essence; for with the holiest certainty of my soul I know that the privilegium aggratiandi for such offences against the simple letter of the absolute universal law of reason is the peculiar prerogative of man, the seal of his dignity and of his divine nature.— Jacobi's Letter to Fichte, Hamburg ed. pp. 32, 33.

The confusion of moral with positive law here is manifest. The shew-bread acquired its sanctity solely from positive insti-No moral principle was violated when its necessary use for ends higher than any mere outward ceremonial was tolerated. The same is true of the relation of plucking corn on the Sabbath, to appease hunger and preserve health, to the charge of Sabbath-breaking. The Lord of the Sabbath makes a very summary disposition of it—which is comprehended under a broader principle respecting the immolation of piety, morality, and humanity on those altars of external rites which are ordained only in furtherance of them-"I will have mercy and not sacrifice." "The Sabbath," says our Lord, "was made for man, and not man for the Sabbath." While this shows that no such rigor of outward Sabbath observance is to be insisted on as to make man a victim of such rigid formality, nevertheless it does not annul the sacredness of the day, or the duty of abstinence from all worldly labors and recreations not demanded by necessity and mercy. But Jacobi treats this positive and dispensable element in the Sabbath as if it were on the same footing as absolutely moral laws, grounded in the nature of things, and beyond all suspension or repeal; as if the obligations to abstain from idolatry, profaneness, murder, adultery, theft, and lying, were on no higher ground, and it could be properly said of these in relation to man, "They were made for him, not he for them." The reverse of this is true of the moral law, whether as emanent in express statute, or immanent in God's perfect nature and will. It is not made in the sense of being capable of non-existence, so long as God and his accountable creatures exist. It is not made for them in the sense of being subordinate to them or their interests, if these could properly be conceived to be in conflict with it: or capable of annulment if found in real or supposed conflict with them. Conformity to this law, which is perfect, does indeed make man perfect in character and condition. But this goes to prove that man is made for it, and must make it his supreme standard: not that it was made for man, and must be flexible to his vacillations. Is it not a sheer solecism to say that the law of truth is a mere arbitrary enactment, made for the benefit of man, and revocable at pleasure when it goes athwart man's pleasure or interest? Is it not the case, rather, that man, by virtue of his moral and rational nature, is made to love, maintain, speak, and act the truth, and every other part of that perfect and immutable law no iota of which shall ever fail? It is the province of human legislatures to protect and enforce truth by punishing perjury, libel, and fraud. What would be thought of their affixing pains and penalties to the utterance of truth, or the practice of honesty?

There is indeed a border-land here, as nearly everywhere outside of pure a priori sciences, in which the two kinds, however distinct, still overlap and interpenetrate. The moral law, tho not any creation of mere arbitrary will, in which stat pro ratione voluntas, is nevertheless what God wills, and in this sense is binding because divinely commanded. Positive precepts of religion, tho only obligatory because positively instituted, are nevertheless so instituted of God because, for the time being, they serve moral ends. Sometimes these so interblend that it is not easy to find the precise boundary-line between them. This is peculiarly true of the Christian Sabbath, which, as to the nature and ends of the sacred rest it provides and enjoins, is moral, and in its own nature obligatory. But as to the precise

day, its order and frequency of recurrence, and the external form and rigor of observance—this is matter of positive enactment, and depends upon it. It would be safe to say that he is no Christian who observes no days or times of sacred rest. But it would be quite aside of the mark to say that one who, lost in the forests or on a desert island, or through mistaken calculations, fixes on the wrong day as a Sabbath, is therefore any the less a Something of this kind must be conded to different persuasions as to the required form and man or of its observ-But because modern life is so conditioned upon facilities for public travel that even church-going requires forms of public carriage not formerly needed, it does not follow that there should be no restriction of railway travel or transportation on the Sabbath, or that these agencies of locomotion should promote its desecration by excursions for pleasure and revelry on that day. Because it is right to take the first rope or boat one can lay hold of to save a drowning man, it does not follow that St. Crispin was right in stealing leather for purposes of charity to the poor. The difficulty here, however, respects the application of principles more than the principles themselves. There is always less difficulty with principles in the abstract, as such. The chief perplexity and controversy arise as to their application to concrete cases. To render to creatures the homage due to the Creator, or worship them as God, would be unquestioned idolatry; but some Romanists, admitting this, insist that in kneeling before images of Christ and the saints, or literal figures or emblems suggesting the Trinity, they are not bowing down to these, but to the divinity they symbolize. A lie is a false representation made with intent to deceive, when the circumstances imply at least, a promise to utter truth. But in regard to how many cases may questions arise, whether there is a misrepresentation in fact or intention, or whether a promise is fairly implied to make accurate statements? It would be agreed that feints and stratagems in war, made with the design of mystifying or misleading the opposing general, involve no promise, implied or otherwise, to give him light, or not to mislead him. But communications made under a flag of truce involve a recognized pledge to utter the truth. The violation of this would make the offender an outlaw. It would hardly be

said that a mother using every deception to hide her child from the murderer or kidnapper was under any implied promise to enlighten, or not to mislead him in her communications. go a step further. Suppose it were to save her property from robbery, spoliation, confiscation, extortion. Do we not soon reach a point where false representations with intent to deceive do break the implied understandings amongst men, and incur the guilt of lying, unless all falsehoods to protect one's interests are to be taken out of the category of lying and approved as guiltless? And then what faith can remain in the word, promise, or honor of men? The very bonds of society are thus sundered, and all men become Ishmaelites to each other. while this is so, it is impossible to formulate rules to meet every case which will not become a snare by being made, without much stretching, to cover cases which admit of no iustification that would not be a defence for lying in general. The only safe course in respect to this, as to all moral precepts, is to proceed on the assumption that they form the only rule of conduct, and to provide no rules for anomalous cases. Abnormities require no norm. Each case has its own peculiarities. If eccentric to all general laws, it has its own line of deflection not described by any other. If it justifies any apparent transgression of the moral rule, it will furnish its own reasons and motives of sufficient strength and urgency. There is no danger that he who recognizes no law in his utterances and promises but that, "putting away all lying, every man speak truth with his neighbor," will not be likely enough to feel and act upon the reasons which in extremis may palliate or justify partial, ambiguous, or misleading answers to robbers, murderers, or simply impudent inquisitors trying to extort what no duty requires to be disclosed to them, without attempting to formulate rules and make out hair-breadth casuistical distinctions and formulas defining when false statements will be admissible. The moment we begin this we enter the confines of Jesuitism. There is no surer way of dulling the moral sense, and paralyzing the mainsprings of morality, than the process of finding or inventing reasons and occasions for being excused from it. It is not the way to grow truthful to become an expert in ways, means, and opportunities for evading or denying the truth. It is like the attempts to

cultivate Christian feeling and enthusiasm by a morbid introversion of the mind on itself to see whether it possesses or is destitute of them, instead of contemplating the objects fitted to excite them. It is like vitalizing the body by practising anatomy and vivisection upon it. But we must now consider more positively and fully the relation of duty and expediency to things adiaphorous.

In approaching this, it is to be observed that, as in the seeming exceptional cases just noticed, each specific instance of action is quite beyond all general rules applicable to all its details. It is thrown back upon the individual conscience and judgment to make a candid and right decision, when perhaps a great complexity of considerations comes in. It is very different from the categorical yes or no, which may be the easy and unmistakable answer to such questions involving veracity as-"Are you a Presbyterian, an Episcopalian, a Methodist?" or, "What ought you to do about refunding borrowed money which you have promised to pay?" The question, how much pocketmoney ought you to allow a spendthrift, or an economical son, is one which you alone can decide, which brings an individualizing of duty, and of the determination of it to yourself, as a far more formidable personal problem than the question of keeping an oath, or paying a debt.

I. This class of actions, tho in themselves neither binding nor prohibited, is nevertheless not in such a sense extra-moral, or beyond the scope of conscientious oversight and direction, that we are not amenable to conscience and to God for our course in respect to each and all of them. From our very constitution as free, voluntary, accountable agents, we are responsible for each and every voluntary act. We are bound, not only to do acts intrinsically good and avoid those intrinsically bad, but in respect to those not such, the obligation holds, to do or refrain from doing them according as they, apparently to the doer, in the exercise of his candid judgment, and in view of the best light he can get, tend to the furtherance of that which is morally, religiously, Christianly, good or evil. Herein each one is responsible for the exercise of due diligence and candor in seeking the truth. Thus, what food, dress, furniture, equipage one shall have is, in itself, a thing indifferent; but if it be

noxious to health of ourselves or others; if it be beyond our means of honest payment; if it tend to tempt others to an extravagance of ostentatious expenditure that works evil, and evil only, in the church and society; if, from unsuitableness to our position, it curtails our influence for good; in short, not to go into further detail, if the visible consequences be evil only, or evil with no compensating good; or if upon ourselves the effect be to inflame evil lusts—anything but for edification then there is a clear obligation to abstain from it. Yet, on the other hand, it will never do to say that we must deny ourselves all of what are called luxuries, because life and efficiency in the service of Christ could be sustained without them; to rule out all that ministers to the temperate gratification of the tastes which God has given us, physical, artistic, intellectual—in short, the appetencies, "whether of the palate or of the soul." To proscribe refinement and culture, and relapse into the privations of asceticism, barbarism, or semi-civilization—this is not Christianity, tho sometimes mistaken for it. There is little danger in this direction. It is mostly the other way in this day of abounding self-indulgence, pampered by superabounding material wealth. The poor, too, are far better supported by industry in ministering to the wants of those able to employ them, than by charity so bestowed as to support idleness and vagrancy. Still, men are accountable for every free act in respect to things indifferent. They are bound, while "free from all men and the servants of none," in all things to seek their own and others' welfare, and the honor of God; or, as Paul sums up all his teachings on this subject in the all-inclusive charge: "Let every one please his neighbor to edification" (Rom. xv. 2). "Whether ye eat or drink, or whatsoever ye do, do all to the glory of God" (I Cor. x. 31).

2. We are thus finding our way to the true scope of Christian liberty in such matters. For there is beyond doubt a liberty in these things that has no application to lying, stealing, licentiousness, profaneness, idolatry, or atheism. We are bound to do that which appears to be for the highest good. But who shall judge and determine this question? Each one clearly, getting the best light he can, must judge for himself. "Let each one," says Paul, "be fully persuaded in his own mind"

(Rom. xiv. 5). He is bound, indeed, to judge candidly and carefully, but still he must judge for himself. Others may not usurp the prerogative of judging him, or judging for him. In such matters he is not a law to other men's consciences, nor they to his. "Who art thou that judgest another man's servant? To his own master he stands or falls." (Rom. xiv. 4.) In respect to other men, therefore, in things indifferent, he is not in bondage. He is in the sphere of liberty which, in all proper ways and on all suitable occasions, he is to maintain in the fear of God, indeed in the face of, and, if need be, against all men. But—

3. How is he to use this liberty? This depends on circumstances, one thing alone being invariable—that he is always responsible to God for the right use of it. At the threshold, too, it may be further added negatively, that he is not to use it for selfish gratification when this conflicts with the spiritual good of the subject of it, of his brethren; in a word, the blessing of man and the glory of God. In the epistle to the Galatians (v. 13), the apostle tells them, "For, brethren, ye have been called unto liberty; only use not your liberty as an occasion to the flesh, but by love serve one another." So his uniform charge, however varied in form, in treating of these subjects, is to "follow the things which make for peace, and things wherewith one may edify another" (Rom. xiv. 10). Since "None of us liveth to himself and no man dieth to himself. For whether we live, we live unto the Lord; and whether we die, we die unto the Lord." (Id. 7, 8.)

So the use of this liberty is to be governed by charity, not only in the general sense of using it for the edification of others; of doing good unto all men as we have opportunity, especially unto the household of faith (Gal. vi. 10); but in a charitable consideration and treatment of one another's infirmities, or differing judgments and practices in respect to the right use of things indifferent in themselves. This, indeed, is the great stress of the apostle's elaborate exposition of this subject in the parts of his letters referred to. He treats of the observance or non-observance of certain days which in the eyes of some were sacred, so that to them their non-observance was a sin, while others knew them to have no sanctity above other days. In the same way, some abstained from meats as having been pol-

luted by being offered to idols: others knew that there was no sin in eating these things, and accordingly indulged in them. disregarding the scruples of their weaker brethren. Thus, on the one hand, they wounded their weak brethren's conscience by doing that which in their eyes was sin. But while thus grieving, they also tempted these weaker ones to sin, by following the example of the more enlightened, in doing what in the eyes of the latter, and in itself, was not sinful, but became sinful when done by the less enlightened, because the latter believed it For the in these matters indifferent, as the apostle declares, "all things are pure," yet "it is evil for that man that eateth with offence" (Rom. xiv. 20). That is to say, if a man, in whatever he is doing, believes he sins, and intends to sin, he does . thereby sin. Whatever be the nature of the act, there is the sin of evil intent. In Paul's expressive words, "Happy is he that condemneth not himself in that which he alloweth; and he that doubteth is damned [condemned] if he eat, because he eateth not of faith. And whatsoever is not of faith is sin." (Id. 22, 23.) Irrespective of all questions about any other faith, whatsoever a man does without any faith in its being what, according to his best light and judgment, is pleasing to God, is sin.

Now, instead of acting in the pride of a "knowledge that puffeth up," rather than the "charity which edifieth" (I. Cor. viii. 1), and thus speeding weak Christians on to destruction, we should sacrifice our own pleasure and emolument, when we can do so without moral compromise, to their spiritual welfare, in a charitable estimate of their scruples and judgments, however groundless, if yet they be conscientious. What can surpass the conclusiveness of the apostle's argument, or the urgency of his appeal? Speaking in reference to the treatment of those who felt that in eating meat which had been offered in sacrifice to idols, they were incurring the guilt of idolatry, he says: "But meat commendeth us not to God: for neither, if we eat, are we the better; neither, if we eat not, are we the worse. But take heed lest by any means this liberty of yours become a stumblingblock to them that are weak. For if any one see thee which hast knowledge sit at meat in the idol's temple, shall not the conscience of him which is weak be emboldened to eat those things which are offered to idols; and through thy knowledge

shall the weak brother perish, for whom Christ died? But when ye sin so against the weak brethren, ye sin against Christ." (I. Cor. viii. 8–12.)

4. The grand conclusion of the whole matter is then reached by the apostle, in which we would approach the practical outcome of this discussion: "Wherefore if meat make my brother to offend, I will eat no flesh while the world standeth, lest I make my brother to offend" (I. Cor. viii. 13). A conclusion somewhat amplified in the correspondent part of his letter to the Romans, when he declares: "It is good neither to eat flesh nor drink wine, nor anything whereby thy brother stumbleth, or is offended, or is made weak" (Rom. xiv. 21). This is only a segment in the grander sweep of that all-inclusive practical and theoretical law of the Christian life already emphasized, in which his treatment of this subject culminates—"Whether ye eat or drink, or whatsoever ye do, do all to the glory of God."

A man may be a Christian without being a Christian gentleman, and this, too, without being amenable to church discipline for being rough, coarse, boastful, self-asserting, and regardless of the just feelings and claims of others. But, it hardly need be said, this is a most unseemly and unedifying assertion of Christian liberty. How much finer and nobler is that exercise of it enjoined by the apostle—"Finally, brethren, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are of good report; if there be any virtue, if there be any praise, think on these things" (Phil. iv. 8). No wonder at the eulogium attributed to the infidel Bolingbroke, who is reputed to have declared his admiration of the apostle Paul "because he was so perfect a gentleman."

But the law of charity is not one-sided. If they who have knowledge that some things are sinless, which their weaker brother deems sinful, may not use their knowledge uncharitably in a haughty or uncaring contempt of his ignorant scruples, or in tempting him to commit that which, tho no sin to an enlightened Christian, is a sin to him, from his narrow standpoint; neither, on the other hand, may the weaker brother judge and condemn one who differs from him in his views and practice respecting these non-essential and indifferent matters. He is to presume that his brother acts in the case according to

his best light, and in all good conscience. Most flagrant breaches of charity tending to hurtful, and even fatal strifes and divisions, have often resulted from the fanatical and bigoted anathematizing of practices innocent in themselves, by ultraists, by one-idea reformers, by those "righteous over-much" in single lines of self-denial, who make abundant amends for this by swinging over to heedless and even foul self-indulgence elsewhere; who are monomaniacs in some one reform, and licentious in general living; whose prototypes were depicted once for all by our Saviour as those who "pay tithe of mint, anise, and cummin, and have omitted the weightier matters of the law, judgment, mercy, and faith" (Matt. xxiii. 23). From all such uncharitableness, good Lord, deliver us. Says Paul: "Let not him that eateth not judge him that eateth not; and let not him that eateth not judge him that eateth: for God hath received him" (Rom. xiv. 3).

And further, it may sometimes happen that, when narrow, ignorant, and fanatical people undertake to enforce, as a matter of absolute, universal, and intrinsic obligation, what, after all, falls under the category of things indifferent, and is to be determined by each one's conscientious judgment as to its expediency and propriety in the circumstances, it may be a duty to say so, and act accordingly. A principle may be involved in vielding to demands that we treat that as a sin, in its own nature and in all circumstances, which is only so by accident and in some circumstances, of which circumstances and their moral bearings each one, in all candor, must judge for himself; herein being subject to no man, and not at liberty to allow himself to be subject to any other. It may sometimes be a duty to do what otherwise would be better refrained from, for the simple purpose of asserting and vindicating a liberty unwarrantably threatened or invaded. Even in cases in which Paul exhorts to abstinence from things offered to idols, for the sake of the weak believer who protests against it as partaking of idolatry, he says: "Eat not, for his sake that shewed it; and for conscience' sake: for the earth is the Lord's, and the fulness thereof: Conscience, I say, NOT THINE OWN, BUT OF THE OTHER: FOR WHY IS MY LIBERTY JUDGED OF ANOTHER MAN'S CONSCIENCE?" (I. Cor. x. 27-9.)

So, while he declares, "All things are lawful for me; but

all things are not expedient," he adds, "I will not be brought under the power of any." He charges us to "stand fast in the liberty wherewith Christ hath made us free, and be not entangled again with the yoke of bondage" (Gal. v., I). Because, of itself, external circumcision is neither morally good nor evil, in peculiar circumstances Paul circumcised Timothy, so as to avoid exciting the prejudices of the Jews against Christianity, and thus hindering his access to them for good. But when this concession came to be perverted so that Jews and Judaizing converts insisted on the circumcision of the Gentiles as essential to their salvation and recognition as Christians, and when Peter was giving some countenance to the demand, he discarded and denounced it utterly, because, practised in compliance with such a demand, it amounted to a sacrifice of principle and a surrender of the Gospel. Therefore he declares that Titus, who was with him, being a Greek was not "compelled" to be circumcised; and this, because false brethren "came in privily to spy out our liberty which we have in Christ Jesus, that they might bring us into bondage" (Gal. ii. 3, 4). And herein he declares he "withstood Peter to the face because he was to be blamed."

It is obviously a chief problem of the Christian life, and of common morality as well, rightly to adjust the true maintenance and use of liberty in things indifferent, so as not virtually to sacrifice it and fall into a bondage, galling, ensnaring, debilitating, on the one hand; yet so as to promote the honor of Christ in our own and others' edification, on the other. We are not to allow others to impose on us super-scriptural standards of morality and conditions of salvation, on the one hand; or, on the other, to use our liberty in things indifferent so as to turn it into licentiousness, or to sacrifice, or subordinate the spiritual welfare of others to our own self-indulgence. While "free, vet not using our liberty for a cloak of maliciousness" (I. Pet. ii. 16). Charity, love, in every aspect and outworking of it, is to be the grand overmastering impulse of the Christian life. With tireless assiduity, with a heavenly tact and wisdom, we are to aim to adapt ourselves to all; to come into sympathetic, winsome communication with all, that so we may be in the best position to do them good; to gain them to Christ, holiness, and

salvation. So the practical conclusion of the whole matter is, that each one for himself, and especially all who would be wise to win souls, should make the great apostle's line of conduct their own, in due adaptation to time, place, and circumstance. "For tho I be free from all men, yet have I made myself servant unto all, that I might gain the more. And unto the Jews I became as a Jew, that I might gain the Jews; to them that are under the law as under the law, that I might gain them that are under the law; to them that are without law as without law (being not without law to God, but under law to Christ), that I might gain them that are without law. To the weak became I as weak, that I might gain the weak: I am made all things to all men, if by any means I might save some." (I Cor. ix. 19–22.)

But here we must mark the boundary between Christian and Jesuitical expediency, wisdom, and prudence in upholding and propagating the church and Gospel. Within the sphere of things lawful, i.e. not sinful, all the resources of Christian ingenuity, benignity, fidelity, should be exhausted to devise ways and find media of successful approach to the souls of men, "if by any means we may save some;" if we may allure them away from sin, vice, evil, to Christ and clean Christian living. things non-essential and indifferent we must accommodate ourselves to their prejudices, and infirmities even; yea, with sweetest persuasion and gentlest insinuation go down into their hearts, and draw them as with the cords of a man and the bands of love; or if they be defiant and presumptuous in their wickedness and irreligion, it may be expedient to awe them with the divine threatenings; by the terrors of the Lord to persuade them, and to pierce their self-inflation by the sword of the Spirit, which is the Word of God. It is our opinion that the Protestant and evangelical ministry fail far more grievously here, than in regard to preaching the substance and marrow of Christian truth. They may often fail of due earnestness, which is very much like want of blood in the body. But they fail still more, we apprehend, in that ineffable tact which rightly divides the word of truth, so timing, proportioning, adapting it that it shall stand forth, not in dead heartless abstractions, often abstractions of abstractions; but in living concrete forms, so that men shall behold themselves in it as in a glass, and, with their needs, shall behold "Him that liveth, and was dead; and is alive forever more, and hath the keys of death and hell." weakness of the pulpit lies largely here, much more, unless we mistake, does great weakness out of the pulpit lie in just this region: in the want of heart, zeal, tact, to bear the heavenly message from house to house, and from heart to heart, with the kindling warmth of love, and the aptness of a heaven-inspired We are sure that many pastorates now fearfully barren would be more fruitful, if this vacuum of kind face-toface dealing with souls were properly filled. This is not the duty of the pastor only. It is the province of all Christians, especially office-bearers in the church. And no service is more rich in blessings to its doers, its objects, and the whole church. But it can scarcely be expected that others will be very efficient in this work. however much exhorted to it, with no stimulus and guidance of pastoral example. There have been pastors utterly refraining from such service, almost as much as if it were a malum prohibitum, who contented themselves with publicly scourging their people for not doing it, or into doing it—a process very impotent and unsatisfying to all parties, so long as the minister does not himself thus "allure to brighter worlds and lead the way."

But while they are, within the limits prescribed, "to become all things to all men, if by any means they may save some," they are not to go the length of doing evil that good may come, or of the Jesuitical maxim that "the end sanctifies the means." They are indeed to be "wise as serpents," but "harmless as doves." We are to "seek first the kingdom of God and his righteousness." "Other things shall be added" unto us in due order. But we are not to commit unrighteousness as a means of promoting righteousness, much less for the sake of decoying people into the church, which so far as built up in this way is a very fabric of iniquity, not the temple of God. A fontal error is the subordination of other, even moral, obligations to that of promoting and enlarging the church. Pre-eminent is that doctrine concerning veracity which requires or permits the confessor to deny his knowledge of what is told him at the confessional, because he does not know, with a communicable knowledgescientia communicabile. This is one form of the doctrine of mental reservation in our affirmations; i.e., making them according to truth, save wherein the mind secretly reserves the privilege of having it otherwise—a principle which, carried out, undermines all confidence between man and man, and disorganizes society.

The other bad maxim, once, if not now, in vogue with Jesuits and others, is found in Probabilism, so named. That is, as duty is often doubtful, according to some almost always so, probability may be our guide. This probability may pertain to the nature of the act, or the opinions of casuists about it; and since these opinions often differ, thus leaving pure probability for our guide, this will be followed if we take the less, or least probable authority. For even then we shall be following probability, which is our lawful guide. It is obvious that such a principle of duty undermines all foundations. There is no standard of right. Right may be the most, or least, probably right. We can never know what or whom to trust. Probability in any form never applies, more than expediency, to actions in themselves moral. It is only applicable, where expediency is, to things morally indifferent; and then only in reference to their most probable bearings or tendencies. But even here the doctrine that the least probability may overbear a greater and predominating one is itself monstrous, and subverts all ethical standards. It installs mere caprice as the guide of the vast majority of human actions. It is only matched by that climacteric proverb of unscrupulous greed and ambition-"Nothing succeeds like success."

In close neighborhood to this, lies the application of the principle of expediency to the times, ways, degrees of fulness, of communicating truth by those who possess it, not only to other classes, but to those in a state of mind incapable of appreciating or not perverting it. This includes also the case of those who consider themselves to have reached views of truth and degrees of knowledge beyond their generation or church. In respect to this general subject certain principles are beyond dispute. (1) No one can innocently proclaim as true what he knows or believes to be untrue; or that as certain which to his own mind is doubtful. (2) No man may from

selfish or worldly motives hold back truths or portions of truth known to himself, which appear suited to the wants of those whom he addresses; or when the non-avowal of them amounts to a failure to make a good confession before many witnesses, a "shunning to declare the whole counsel of God" (Acts xx. 27). But within these limits there is a certain liberty, which often becomes a duty, of reserve in the communication of truth or portions of truth, because, for one reason or another, those addressed are incapable of not perverting or abusing it. This is determined very largely by the knowledge or ignorance, the maturity or immaturity, the candor or obduracy, of those with whom we have to deal. We are not to cast pearls before swine. Babes in Christ must be fed with milk, the rudiments of truth, not with meat, or with truth in forms more advanced. abstract, or methodical, because they are as yet unable to bear it. It is beyond their powers of digestion and assimilation. It would therefore minister not strength, but debility. The Great Teacher thus held back important teachings until his disciples should come under fit conditions of training and discipline to receive profit and not harm from them. He told them, "I have yet many things to say unto you, but ye cannot bear them now" (John xvi. 12). Yet there are limits to all this. It is easy to stretch it so as to make it a pretext for unfaithfulness and time-serving, rather than a principle of wise and conscientious discretion in "becoming all things to all men for the sake of saving some." It would be absurd in itself, and a gross breach of trust, to always be withholding what the souls of the people need, because some are confounded by it, while others wrest it to their own destruction. It would be like keeping the sane in ignorance or error on account of the whims of the insane; like refusing to make the Scriptures profitable for "reproof and correction" to the great mass who need it, because it might still further distress some wretched victim of religious melancholy; like keeping the well on a starveling diet in order to avoid overloading spiritual dyspeptics. To withhold saving or edifying truth because it will be so misapplied by some as to become unprofitable and injurious to them, would amount to withholding it altogether. To some the preacher must be "a savor of life unto life;" to others, "of death unto death"

(2 Cor. ii. 16). Each new case presents its own peculiarities. None can be fully provided for by any minute, cast-iron rule. The heavenly wisdom, zeal, and love of the preacher are brought into constant requisition. He must do his best, without treason to truth and God, "if by any means he may save some."

The esoteric and exoteric, the progressive and conservative. and the obligation to publish or keep silent in regard to supposed discoveries in advance of standing beliefs, come under similar methods of adjudication, subject to one special qualification. While one who supposes himself illuminated beyond his brethren, or his time, is to judge before God whether the present voluntary promulgation of his views is, in the present condition and temper of those affected by them, likely to be for edification; and while he is never to deny or disguise them if called in providence to declare himself; he may justly feel bound to keep silence until he is sure they have passed beyond their crude and immature state to that ripeness which comes of long study, reflection, and experience. Nay, he ought to feel bound to this, rather than cause disturbance and convulsions by that very rawness which time will defecate from them. brilliant genius. Horace Bushnell, late in life, characterized those works which thirty years ago convulsed the Congregational churches of Connecticut as "green." Perhaps, had he waited till his views ripened before promulging them, much sad agitation would have been spared himself and his communion. But it must never be assumed that any man, body of men, churches, are infallible, or that they have mastered the omne scibile, or that the whole meaning of the Scriptures has been evolved, or that no new light will come forth from them, and upon them, through diligent study, and the illumination of God's Providence and Spirit. All plausible claims to new light should be candidly considered and weighed. The most charitable construction should be put even upon apparent aberrations. But if they strike at fundamentals, upon what within the pale of the Christian church has, not in the speculations of theorists and dogmatists, but in the faith, life, prayers, and hymns of Christian people, been accepted semper, ubique, ab omnibus, then we may conclude that, if the church has not found the substance of the Bible's teach-

¹ Life and Letters of Horace Bushnell, p. 553.

ing so far, it is undiscoverable. The Bible has then failed as a revelation to man. Infidelity is the true creed. This will not do. Our course is plain here. Accept whatever real light comes "Prove all things. Hold fast that which is good." (I Thess. v. 21.) "If there come any unto you and bring not this doctrine, receive him not into your house, neither bid him God speed" (2 John 10). The charity that beareth all things, believeth all things, hopeth all things, is a charity that rejoiceth in the truth. Indeed the whole matter of liberty, duty, and charity, in the manner of mutual dealing between those who suppose themselves more enlightened in doctrine and those whom they deem less so, is closely akin to the case of those who have more or less light in regard to the right or wrong of using things indifferent. To find the point of practical junction or reconciliation of the two principles—"If thy brother be grieved with thy meat, now walkest thou not uncharitably," and "Why is my liberty judged of another man's conscience?" is one of the chief problems of Christian life.

The application of the principles thus conspicuous and unmistakable in Paul's treatment of this great subject, which touches life at nearly all points and all times, must be left very much to each one's individual judgment and conscience. It is eminently the sphere of personal liberty and responsibility combined. Here we call no man Lord. One is our Master, even Christ. Questions of practice incessantly controverted—games, amusements, indulgences that have been and are sharply debated—find here the principle by which they must be tried. Are they, in a given case, for edification? Do they promote the moral and religious welfare of men? Are they conducive to good, all things considered?

It seems to us a beneficent use of Christian liberty to abstain from intoxicating beverages, not because all use of them is per se a sin, but because, while no duty requires them to be taken except in special cases for medicinal or hygienic uses, such abstinence promotes their disuse and so lessens great perils to ourselves, to others, to society. The evils averted by their universal disuse in our view surpass all calculation. But this does not justify us in making such abstinence a test of virtue, uprightness, or religion, or the want of it an iniquity to be visited with social ostracism, civil penalties, or church excommunication.

Different views of expediency and obligation may and do obtain here, and the liberty of each is not to be judged by "other men's consciences." Much less may we do evil that good may come. or maintain unscriptural doctrine in order to raise the supposed stringency of the obligation of abstinence above the plane of expediency to that of intrinsic and immutable obligation, like the duty of abstaining from poisoning wells. Such we esteem the doctrine, maintained by some, that all the wines, any use of which is permitted in Scripture, were unfermented and nonalcoholic. If the cause of temperance, as dependent on abstinence, can be placed on no stronger basis than this, it cannot stand or prevail. Not only so. But the system of torturing the Scriptures out of their obvious meaning, in the supposed interest of so excellent a cause, is capable of wide application, and may easily be made effective for emasculating them of whatever clashes with the baldest rationalism, or "the desires of the flesh and the mind;" in a word, for undermining the authority of that on which every good cause must find its firmest foundation. What higher ground of appeal do we want than that of Christian expediency—the duty of so using our liberty that it may offer no stumbling-block or occasion to fall to others? "It is good neither to eat flesh, nor drink wine, nor anything whereby thy brother stumbleth, or is offended, or is made weak" (Rom. xiv. 21). So savs Paul. So sav we. If this does not suffice, what will? When ceremonies indifferent in themselves were demanded of, and enforced upon, the reformers as a condition of unity, they deemed it the time not to yield even in things indifferent, if the demand was enforced by persecution. Says the Formula of Concord, de caremoniis ecclesiasticis: "Credimus, docemus et confitemur, quod temporibus persecutionum, quando perspicua et constans confessio a nobis exigitur, hostibus evangelii in rebus adiophoris non sit cedendum" (Art. x. 4.)

We say this not only in interest of truth as such, but because we believe the cause of total abstinence itself, in all its most benignant influence, will, on the true basis, have a far wider prevalence than on that which many, as we think, in this respect, injudicious friends of it, have so long been attempting to substitute for it.

LYMAN H. ATWATER.

LEGAL PROHIBITION OF THE LIQUOR TRAFFIC.

EVERY great reform, in the course of its development, is said to pass through three stages. In the first, no notice is taken of it by the practical mind; in the second, it is denounced as unworthy of notice; while in the third stage its expediency is conceded and its practical character recognized by all. That the movement in favor of the legal prohibition of the liquor traffic has met with ridicule, derision, and contempt is neither surprising nor important. No great movement running counter to all the customs and habits of thought of a people ever had a different experience. If it be grounded on a just principle, its ultimate success is assured.

THE JUSTICE OF THE PRINCIPLE.

Writers like John Stuart Mill in England, Laboulaye in France, and Von Humboldt in Germany, have sought to contract the limits of state legislation as much as possible without destroying the existence of the state. But we are willing to grant them that there is a circle around every individual which no government ought to overstep. No one denies that to-day. We are willing also to have the boundary line drawn where Mr. Mill has drawn it, and to say with him, this reserved territory includes all that part which concerns only the life, whether inward or outward, of the individual, and does not affect the interests of others, or affects them only through the moral influence of example. Or we may adopt the limitation of state action as laid down by Von Humboldt, and say that to protect its citizens the state must forbid or restrict those actions having an immediate relation to the actor alone whose consequences injure others in their rights; that is, which "without their consent diminish their freedom or their goods, or from which these

results may fairly be apprehended to proceed." Does the prohibition of the traffic in intoxicating liquors fall within any such limitation of state action as is here marked out? It certainly does not. No one can doubt but that the results which may fairly be apprehended to proceed from the traffic in intoxicating liquors diminish both the freedom and the goods of others, by creating a criminal class to prey upon both, and a pauper class to be supported at the public expense. No rule of limitation can be laid down which permits the existence of the state and yet denies to it the power to protect itself against an evil and a wrong which would undermine the very foundations upon which the social fabric rests. If the natural and proximate result of the use of intoxicating liquors is intoxication, and the natural and proximate results of intoxication are disorder, violence, and crime, he must needs be bold indeed who would deny to the state the right to protect its endangered interests by prohibiting the endangering act.

But it is sometimes said that every one has a natural right to buy and sell and drink intoxicating liquors; that to deny him this right is to unjustly interfere with his natural freedom from restraint. This argument implies that this "natural freedom from restraint" is some valuable right which a man possessed in a state of nature, and which it is therefore the duty of the state to recognize and protect. Every one, however, ought to know, what has been shown over and over again, that "in no proper or valuable sense has any such liberty existed or been possible." A state of nature in which man is to be considered as an individual without regard to family or political relations, with a right to do as he pleases, is a state of perpetual warfare and contention. It is by no means certain that there ever was any such thing as a natural as distinguished from a social state. But if there was, man when he passed from his natural into his social state merged his natural in his civil rights. And civil rights are defined by that eminent jurist Mr. Justice Cooley as embracing "the right to do everything not harmful to the public or to other individuals." Whenever a private right becomes injurious, noxious, or offensive to the public good, the private right becomes subordinate to the public right which community has to demand protection therefrom. Acts innocent in themselves acquire from circumstances the quality of injuring the public. To carry arms about one's person for purposes of self-protection is in itself an innocent act. where citizens generally do the same thing the tendency is to create disorder and cause the unjustifiable taking of human life; the state, therefore, prohibits the carrying of dangerous weapons concealed upon one's person. So the building of a depot for the storage of gunpowder is in itself harmless and innocent, but the erection of a building for such a purpose in the centre of a crowded city becomes, from the surrounding circumstances, dangerous to the community, and is consequently not allowed. The same is true in reference to the exhibition of fireworks in large towns, which is sometimes forbidden for similar reasons. So it may be said of the traffic in intoxicating liquors, that notwithstanding it may be innocent in itself, it may nevertheless, by force of circumstances, be injurious to the public welfare and dangerous to the public peace. And if this be so, the private right of sale has become subordinate to the public right of protection. We conclude, therefore, that no man has a natural or a civil right to indulge in a traffic which renders life and property insecure, which promotes immorality, and creates public paupers to be supported at the state's expense. If it appears that the traffic in intoxicating liquors does all this, the justice of the principle that would prohibit and stamp out the whole miserable traffic cannot be denied.

States possess by the law of their existence certain rights or powers which are the inherent attributes of sovereignty. Among these is what is known as the Police Power. Fichte terms this power "the mediator between the state and its citizens." No one denies such a power to the state. Jeremy Bentham describes "police" as a system of precaution for the prevention of crimes or calamities, and distributes its business into eight distinct branches, three of which we desire to consider in connection with the duty of the state toward the traffic in intoxicating liquors. These are:

- 1. Police for the prevention of offences;
- 2. Police of the public health;
- 3. Police of charity.

RELATION TO CRIME.

I. Police for the prevention of offences. If the state is possessed of the police power to enable it to take precautionary measures for the prevention of offences, it is important to ascertain, as nearly as may be, the exact relations of this traffic to In 1670 that eminent chief-justice Sir Matthew Hale expressed himself in the following manner: "After an observation of more than twenty years in the courts, I have found that if the murders and manslaughters, the burglaries and robberies, the riots and tumults, the adulteries, fornications, rapes, and other enormities that have happened in that time were divided into five parts, four of them have been the issues and products of excessive drinking—of tavern or ale-house drinking." Passing over many similar utterances by distinguished judges of England and of this country, we come to the opinion recently pronounced by Noah Davis, the learned Chief-Justice of the Supreme Court of New York, wherein he says: "Whether judging from the declared judicial experience of others or from my own, or from carefully collected statistics running through many series of years, I believe it entirely safe to say that one half of all the crime of this country and of Great Britain is caused by the intemperate use of intoxicating liquors; and that of the crimes involving personal violence, certainly three fourths are chargeable to the same cause." No man, tho in his own conceit he be wiser than Sir Matthew Hale and the long line of distinguished men who have believed as he believed, can break the force of these opinions, fortified by statistics that cannot be questioned. An examination of some of these statistics will be both interesting and important. Lord Morpeth in his official capacity as Secretary for Ireland declared that of cases of murder, attempts at murder, offences against the person, aggravated assaults, and cutting and maining, there were in 1837 twelve thousand and ninety-six; in 1838, eleven thousand and fifty-eight; but in 1839 only one thousand and ninety-seven; while in 1840 there were only one hundred and seventy-three. will be at once admitted by all that this was a most remarkable diminution in the number of offences, for which there must

have been some adequate cause. That cause was the temperance movement instituted by Father Mathew, whose name is to be spoken only in reverence to the latest generations. that movement, between the years 1838 and 1840, sweeping all Ireland like some great wave of the sea, had cleansed it of the great evil of intemperance which had hitherto been breeding all kinds of crime and disorder in the state. The consumption of spirits fell from 12,296,000 gallons to 5,290,000, and the excise on brandy decreased some £750,000. The number of prisoners confined in the Bridewell at Dublin fell in one year from 136 to 23, and one hundred cells stood empty. The Smithfield prison closed its doors. That was the supreme moment for Ireland. The time was ripe for a prohibitory law. Such a law supported by the public opinion then existing might have been enforced from that time on. But the tide was not taken at its flood. The traffic went on, and everything drifted back to the old con-Father Mathew, learning by experience, dition of things. finally saw his mistake, and admitted the necessity of a prohibitory law. A committee of the House of Commons of the Dominion of Canada, reporting in 1875, stated that out of 28,289 commitments to the jails of the provinces of Ontario and Ouebec during the three previous years, 21,236 were committed either for drunkenness or for crimes perpetrated under the influence of drink. The number of arrests made by the police department of the city of New York during the year 1874 are reported to have been 84,300, and of this number 61,470 were for intoxication and disorderly conduct. The convictions for crime in the State of Maine, with a prohibitory liquor law, were in the proportion of 1 to every 1689 of population. The convictions, on the other hand, in the State of New York (exclusive of New York City), without a prohibitory law, were in the proportion of I to every 620 of population. Crime diminished 75 per cent in the State of Connecticut under the prohibitory law of 1854, and in 1873 upon the restoration of the license system it increased 50 per cent in a single year. It cannot be necessary to pursue this subject further, for it must be apparent that the relation between intemperance and crime is that of cause and effect. To permit the sale of intoxicating liquors in grog-shops and saloons is to permit schools for the education of a criminal

class to be opened in every town and hamlet in the common-wealth. Sixty million dollars are annually expended in this country for the apprehension and punishment of those educated in these nurseries of crime and sent forth to prey upon the lives and the property of the citizens of the state. More than forty thousand criminals are supported at the public expense in the prison-houses of this country alone—a number said to be greater than were the allied forces of France and the United States at Yorktown on the memorable day when Cornwallis surrendered to Washington, and more than Lee had in his army at Appomattox Court House.

RELATION TO PUBLIC HEALTH.

2. Police of the public health. The preservation of the public health has been universally recognized as a subject falling within the legitimate domain of legislation. The ancient Egyptians, we are told by Diodorus of Sicily, employed physicians at the public expense whose duty it was to cure the sick without charge. In parts of Greece publicly paid physicians existed. And in the Roman empire it was the custom for the town authorities to appoint their town physicians, who received a salary from the public treasury and enjoyed immunity from public burdens. Almost every civilized state has had its sanitary laws and its sanitary police. Out of consideration for the public health laws are passed prohibiting the sale of poisonous drugs unless labelled; also laws prohibiting the practice of medicine by those who have not graduated from a medical college or passed a satisfactory examination before a state board of The interment of the dead within the limits of a examiners. dense population is forbidden. The intermarriage of persons within certain degrees of relationship is prohibited, because the children of such marriages are likely to be idiotic, dwarfs, or scrofulous. Laws are passed for the prevention of endemic diseases. Offensive trades are forbidden in populous districts. The property of citizens is taken possession of, purified, and even destroyed by the state when the public health demands it. In one case a regulation forbidding the growing of rice within a city was sustained on the ground of its injurious effect upon

health. The life of the citizen is not regarded as belonging to himself, but to the state. Hence the law prohibits duelling, and no severity was formerly too great to be visited upon the felo-de-se. By the common law self-murder worked a forfeiture to the king of all the goods and chattels of the felo-de-se. and he was ignominiously buried in the highway with a stake driven through his body. If the life of the citizen belongs to the state, it is proper to inquire into the relations which exist between the traffic in intoxicating drinks and the public health. And in making examination into this subject we would direct attention not to what might sneeringly be called by some the "estimates" of philanthropists and reformers, but to the facts as they have been found to exist upon investigation made from a commercial standpoint. Life-insurance companies, as is well known, have been for years studying the influence of inebriety upon their risks. The safe investments of large amounts of capital have depended upon the accuracy of the conclusions reached. These investigations, as given by Mr. Neison, one of the most distinguished of English actuaries, have been summarized as follows: I. When, in a given number of risks, ten temperate persons die between the ages of fifteen and twenty inclusive, eighteen intemperate persons die. 2. When, in a given number of risks, ten temperate persons die between the ages of twenty and thirty inclusive, fifty-one intemperate persons die, or the risk on an inebriate is more than 500 per cent greater than on a temperate person. 3. When, in a given number of risks, ten temperate persons die between the ages of thirty-one and forty inclusive, about forty intemperate persons die, or the risk is increased some 400 per cent.

The tables prepared by Mr. Neison exhibit at a glance the difference in the chances of duration of life between temperate and intemperate persons. A temperate person's chance of living is at 20, 44.2 years; at 30, 36.5 years; at 40, 28.8 years. An intemperate person's chance of living is at 20, 15.6 years; at 30, 13.8 years; at 40, 11.6 years.

The average life of drunkards is only thirty-five years and six months. The average life of non-users, on the other hand, is

¹ Green v. Savannah, 6 Geo. I.

sixty-four years. The average loss of life, as appears from the statistics of insurance companies, is a loss of twenty-nine years on the life of every drunkard. This is not merely a loss to the individual or to his family, but to the state of that which properly belongs to it. The loss to the state for every one hundred drunkards is the loss of the aggregate wealth which would result from the production of 2000 years. And the aggregate number of years lost by annual premature deaths, on account of intemperance, amounts to 1,127,000 years, if any reliance can be placed upon what are claimed to be reliable statistics. average wages of a laboring man for a year's services amount to \$500. There is, therefore, an annual loss through premature deaths of \$563,500,000. Large as these figures are, they by no means show the full measure of the loss of productive capacity to the state from this cause. For in addition to this absolute loss is the loss resulting from the inferior capacity for labor of the drunkard during the years that he continues to drag out his miserable existence.

Again, the state, in caring for the public health, expends large sums of public money annually in trying to cure the insane and in providing for the idiotic. Large asylums are erected at great expense, skilled physicians are employed, and the necessary nurses and attendants are required. The annual expenditures in this country for this purpose are estimated to reach \$50,000,000.

It is, therefore, important to inquire into the relation of the traffic in intoxicating liquors to the causation of insanity and of idiocy. Almost any treatise on the subject of insanity will show that the principal causes of this disease are *intemperance*, hereditary predisposition, and mental anxieties. Mr. Henry Maudsley, the distinguished professor of medical jurisprudence in University College, London, says: "While we must admit hereditary influence to be the most powerful factor in the causation of insanity, there can be no doubt that intemperance stands next to it in the list of efficient causes: it acts not only as a frequent exciting cause where there is hereditary predisposition, but as an originating cause of cerebral and mental degeneracy, as a producer of the disease *de novo*. If all hereditary causes of insanity were cut off, and if the disease were thus

stamped out for a time, it would assuredly soon be created anew by intemperance and other excesses." In support of the opinion expressed, the learned author refers to the experience of the Glamorgan County Asylum. The statistics of that institution show that during the second half of the year 1871 the admissions of male patients were only 24, whereas they were 47 and 73 in the preceding and succeeding half-years. during the first quarter of the year 1873 the admissions were 10, whereas they were 21 and 18 in the preceding and succeeding quarters. Now, what is worthy of remark, there was no corresponding difference as regards the admission of the female insane during these periods. The interest and instruction of these facts, he adds, lie in this, "that the exceptional periods corresponded exactly with the last two 'strikes' in the coal and iron industries, in which Glamorganshire is extensively engaged. The decrease was undoubtedly due mainly to the fact that the laborers had no money to spend in drinking and in debauchery, that they were sober and temperate by compulsion, the direct result of which was that there was a marked decrease in the production of insanity and crime." And Dr. Carpenter, an eminent physiologist equally well known in England and in America, in speaking of the hereditary transmission of perverted modes of functional activity, says: "The predisposition may have been congenital on the part of the parents, or it may have been acquired by themselves, and in no case is this more obvious than in the influence of alcoholic excesses on the part of one or both parents in producing idiocy, a predisposition to insanity, or weakness and instability of mind in the children, this being especially the case where both parents have thus transgressed. . . . And it is perfectly well known to those who are conversant with insanity, that of all the predisposing causes of that disorder, habits of intemperance on the part of either or both parents are among the most frequent."2 illustration of the opinion expressed he calls attention to the cases of 350 idiots, only about a quarter of whom were found to be the children of parents who were known to be temperate,

¹ Maudsley's "Responsibility in Mental Disease."

² Carpenter's "Principles of Human Physiology."

while 99 of the number were the children of parents known to be absolute drunkards. A careful investigation of the subject has been made by Dr. Hitchcock, President of the Michigan State Board of Health, who declares that the number of idiots in this country made such by the use of alcohol is 319,000, and that the statistics show that over 9000 persons are annually made insane by the same cause.

RELATION TO PAUPERISM.

3. Police of charity. From ancient times to the present, from motives of public policy as well as from feelings of humanity, it has been deemed proper that the state should make provision for the infirm poor. The Athenians made provision for the poor out of the public treasury as early as the times of Pisistratus or Solon, altho at Rome there were no institutions of public charity. In England the giving of private alms to beggars was forbidden by legislative enactment in 1535, and collections were made for the benefit of paupers under authority of law in every parish. Large amounts of money are annually raised by taxation for their relief in every civilized state. In England alone there was raised for poor relief in 1833 the enormous sum of 8,600,000 pounds sterling. In England and Wales the pauper population in 1859 was equal to 4½ per cent of the whole population; in Holland in 1855 it was 8½ per cent; in Belgium in 1846 it amounted to 16 per cent; while in East and West Flanders in 1846 it is said to have reached 30 per cent. The rate in ordinary times in this country, where land is cheap and labor ordinarily in demand, is supposed to be only half of I per cent. But as we increase in population and in the number of our manufacturing towns, we are sure to find that this rate will be largely increased. Measures must be devised for the prevention, so far as possible, of pauperism. If we inquire into the relation of intemperance to pauperism, we shall find that the former is the "parent" of the latter. The returns made for a long series of years by the county of Suffolk (the city of Boston) to the Secretary of State of Massachusetts show an average of 80 per cent of the pauperism of that county to be due to intemperance. In the year 1863 the whole number of paupers

relieved by the authorities of that county was 12,242; of that number 9,885 had been made dependent either in consequence of their own or their parents' intemperance. The superintendent of the Deer Island Almshouse and Hospital (Boston), in his report to the Massachusetts Board of Health for 1875, declares that 90 per cent of the inmates of that institution are there by reason of intemperance. The report of the Massachusetts Board of State Charities for 1867 states that intemperance is the chief occasion of pauperism.

Such, then, is the relation of the traffic in intoxicating liquors to crime, to the public health, and to pauperism. In the causation of crime and pauperism it appears as a more important force than all other forces combined, and its injurious effects upon the public health are as great as they are lamentable. Certainly it is a seeming absurdity that a state should be possessed of a power to legislate for the prevention of offences, and at the same time be denied the right to put forth that power to eradicate the cause of almost all offences; that it should be under the necessity of burdening itself with enormous taxation for the support of the poor, the insane, and the idiotic, and at the same time denied the right to remove the cause which makes this enormous public expenditure necessary.

The primary end of government is the protection of human rights. In order to protect these rights great public burdens, in the shape of taxation, are imposed. Is that not the wisest legislation and the most in conformity to the ends and purposes of government which furnishes the maximum of protection for the minimum of taxation? This is the result which is to be achieved by the successful prohibition of the traffic in intoxicating liquors.

PROTECTION OF THE HOME.

It is not alone in its relations to crime, to the public health, and to pauperism that the traffic in intoxicating liquors is detrimental to the public welfare. It is the duty of the state to protect the corner-stone upon which the social fabric rests. Government, it is said, is so dependent on the life of the home that for a homeless community anarchy or despotism would be the alternative. "The family is older than civilization, and must always

precede and always accompany it, and without it there can be neither social state in which morality or decency will be recognized, nor civil state with regulated liberty and order." From the earliest times the state has been jealous to preserve and protect the family relations. The story will be told in heroic verse until the latest generations of how for ten weary years the old warriors of Greece fought on the plains of Troy to vindicate and preserve the sanctity of the family. When the state fails to protect the family relations it sows the seeds of its own decay. This was the cause of the ruin of the "Eternal City." whose proud boast it once was to be the mistress of the world, but who now sits "childless and crownless in her voiceless woe." In many ways the state takes the family under its protection and guards it from without. Finding polygamy at variance with the moral unity of the family, it punishes it as a crime. Knowing that a violation of the purity of the marriage relation tends to destroy the existence of the family, it pronounces judgment upon it as a most heinous offence. It prescribes and regulates the forms and conditions of marriage and divorce, and prohibits certain persons from contracting marriage. If the traffic in intoxicating liquors smites the family as with a pestilential blast, leaving it in sickness and death, is it not the duty of the state to interpose? And who denies but that it clothes wives in the habiliments of mourning and sends forth orphan children as paupers committed to the tender mercies of the state? The family is thus scattered and destroyed. No one can doubt that the traffic in intoxicating liquors is opposed to the welfare of the State. And if the end of the state is not merely to live but, as Aristotle says, to live nobly, then surely it should not tolerate that which is everywhere confessed to be the state's bane and curse. There is no defence to be made in its behalf, no apology to be offered for the wrongs it has done and the evil it has wrought. The earth is stained with the blood of thousands which it has slain, and the world is full of the agony it has wrought. "If intemperance were a new evil," says Judge Davis, "coming in upon us for the first time like a pestilence from some foreign shore, laden with its awful burden of disease, pauperism, and crime, with what horror would the nation contemplate its monstrous approach! What severity of laws, what stringencies

of quarantine, what activities of resistance would be suddenly aroused! But, alas! it is no new evil. It surrounds us like an atmosphere, as it has our fathers through countless generations. It perverts judgments, it poisons habits, it sways passions, it taints churches, and sears consciences. It seizes the enginery of our legislation, and by it creates a moral phenomenon of perpetual motion which nature denies to physics; for it licenses and empowers itself to beget in endless rounds the wrongs. vices, and crimes which society is organized to prevent; and, worst of all for our country, it encoils parties like the serpents of Laocoön, and crushes in its folds the spirit of patriotism and virtue." Most unfortunately, however, as Coleridge somewhere says, the most awful and interesting truths are often considered as so true that they lose all the power of truth, and lie bedridden in the dormitory of the soul, side by side with the most exploded errors.

PROHIBITORY LAWS CONSTITUTIONAL.

The question of the constitutionality of prohibitory liquor laws has been so often decided that it may be considered as beyond controversy. The power to establish ordinary regulations of police has been left with the States exclusively. And laws prohibiting altogether the manufacture and sale of intoxicating liquors as a beverage are considered valid police regulations for the prevention of intemperance, pauperism, and crime, and for the abatement of nuisances.¹ "We cannot doubt," say the Supreme Court of Vermont,² "that the law in question falls within that large class of powers which are essential to the regulation, promotion, and preservation of the morals, health, and general well-being and prosperity of the people of this State; and that it may in an eminent degree be regarded as a police regulation, as much so as laws restraining the sale of diseased

¹ Commonwealth v. Kendall, 12 Cush. 414; State v. Allmond, 2 Houston (Del.), 641; State v. Donehey, 8 Iowa, 396; People v. Hawley, 3 Mich. 330; State v. Paul, 5 R. I. 185; State v. Wheeler, 25 Conn. 290; Goddard v. Jacksonville, 15 Ill. 588; State v. Prescott, 27 Vt. 194; State v. Ludington, 33 Wis. 107; State v. Court of Common Pleas, 7 Vroom (N. J.), 72; State v. Bartemeyer, 31 Iowa, 601; Fisher v. McGirr, 1 Gray, 1.

² Lincoln v. Smith, 25 Vt. 328, 337 et seq.

provisions or the quarantine laws, which restrain the natural liberty of the subject and authorize the destruction of his property, which may be supposed to be infected with contagious disease. . . . And it may well be inquired which is the more important and vital to the well-being of the body politic, to prevent the spread of a contagious disease, which affects the body, or the spread of a moral contagion, which results indirectly from the traffic and more directly from the unrestrained use of intoxicating liquors?"

The Supreme Court of the United States has decided that a State law prohibiting the manufacture and sale of intoxicating liquors is a measure of police regulation looking to the preservation of the public morals, and that it is not repugnant to any clause of the Constitution of the United States, but a valid and constitutional exercise of the police power of the State.'

Undoubtedly a prohibitory liquor law might be so drawn as to be obnoxious to certain constitutional principles which would invalidate it. And in this connection many interesting questions suggest themselves, which neither the nature nor the limits of this article permit us to consider. We may in some subsequent article review the whole subject of the constitutionality not merely of the *prohibitory* but of the liquor laws in general. It is sufficient for our present purpose that it has been settled by the adjudications of our highest courts that laws prohibiting the domestic traffic in intoxicating liquors are valid as an exercise of the legitimate police powers of the State,

OBJECTIONS ANSWERED.

I. It is said that these laws cannot be enforced; that they fail to prohibit the sale or to mitigate the evils that flow from the traffic, and that therefore we should be content with the license system and regulate that which we cannot prohibit. The fallacy of such reasoning lies in assuming that the license system actually regulates the traffic, whereas every one knows that it utterly fails to regulate. "As a remedy for the evils and dangers

¹ Bartemeyer v. Iowa, 18 Wall. 129; Beer Co. v. Massachusetts, 97 U. S. 25; and see License Cases, 5 Howard, 504.

of the liquor traffic," says Mr. Justice Pitman of Massachusetts, "license has proved a sad and miserable failure." And the reason why it has failed lies in the fact that the system involves both a moral and a fiscal end, and the more the fiscal end is attained the less is the moral end.

In a country where the local indebtedness during the last decennial period ending in 1876 increased 200 per cent, while population increased only 33 per cent and valuation only 75 per cent, it is fair to presume that the fiscal end has come to be considered as of more importance than the moral end.

In an early case in New York in which it was held that bowling-alleys were a nuisance at common law, the court used the following language, which we adopt as our own and apply to grog-shops for the retail of intoxicating liquors: "A man who should erect a pig-sty under his neighbor's window could hardly excuse himself by showing that he intended to keep it clean and inoffensive. A house in a populous town, divided for poor people to inhabit during the prevalence of an infectious disease, is a nuisance. The law does not wait for the disease to spread. It exercises a wise forecast, and repels the evil at the threshold. It does the same thing in favor of public morals and public economy. A useless establishment, wasting the time of the owner, tending to fasten his own idle habits on his family. and to draw the men and boys of the neighborhood into a bad moral atmosphere—a place which, in spite of every care, will be attended by profligates, with evil communication, and at best with a waste of time and money, followed by the multiplication of paupers and rogues—has always been considered an obvious nuisance." 2 Are the men who create these nuisances, who erect these "pig-stys" upon every street corner, to be excused by the presentation of a license from the state, and is the state to be excused upon the plea that it intended to keep these "pigstys" clean and inoffensive? This is worse than nonsense. is trifling with great and sacred interests. Conceding that prohibition has failed in the past to prohibit, because of errors in the laws and an unenlightened public sentiment, it must also be

¹ Princeton Review, Sept. 1878, p. 386.

² Tanner v. Village of Albion, 5 Hill, 121.

conceded that license has failed to regulate. If the principle of prohibition is right and that of license is wrong, is the state to be excused from adopting prohibition and justified for adopting the license system upon the plea that prohibition fails to entirely prohibit, when it is true that license utterly fails to regulate? Nay, more. It has appeared, from the statistics already quoted, that under a prohibitory liquor law crime is less frequently committed than under a license system. So that, conceding that principle and policy do sometimes diverge from one another,—a concession made for the argument's sake,—the fact will still remain that a prohibitory liquor law is justifiable as matter of principle and of policy.

Of the assertion so frequently made that a prohibitory law cannot be enforced, all that it is necessary to say is that desire is father to the thought. The statistics already mentioned give contradiction to the assertion. That the remedy is not completely successful is conceded. No law ever is. Laws against murder, adultery, arson, and theft exist in every civilized state, and notwithstanding their existence these offences are of frequent occurrence. Yet no one proposes to abolish them in consequence of their failure to completely do away with crime. How is it that an argument so puerile and nonsensical that it is never interposed except in the case of a prohibitory liquor law becomes so forcible and logical when urged against a law which seeks to stop the source from whence all offences come? In a letter written by Joshua L. Chamberlain in 1872, then Governor of Maine, now President of Bowdoin College, that gentleman, speaking of the prohibitory law, says: "The law is as well executed generally in this State as other criminal laws are." This letter was written to Neal Dow, and was published at the time in all the leading papers of the country. We take it, therefore, to be true that prohibitory liquor laws may be so framed that the sworn officers of the law will not dare to connive at their violation.

2. Sumptuary laws are now regarded with disfavor and contempt. The opponents of prohibitory laws, therefore, appeal to this well-founded prejudice existing in the public mind against such laws, and would have it understood that prohibitory liquor laws and sumptuary laws are in effect the same. A sumptuary

law is one enacted to limit expenditure, not to prohibit it. purpose is to prevent extravagance. "Under the head of public economy," says Mr. Justice Blackstone, "may also be properly ranked all sumptuary laws against luxury and extravagant expense in dress, diet, and the like." 1 So, too, Mr. Chancellor Kent says: "The sumptuary laws of ancient Rome had their origin in the Twelve Tables, which controlled the wastefulness of prodigals and unnecessary expenditure at funerals. The appetite for luxury increased with dominion and riches, and sumptuary laws were from time to time enacted from the 566th year of the city down to the time of the emperors, restraining by severe checks luxury and extravagance in dress, furniture, and food. . . . During the middle ages the English, French, and other governments were, equally with the ancient Romans, accustomed to limit by positive laws the extent of private expenses, entertainments, and dress." 2 Webster defines sumptuary laws to be such "as restrain or limit the expenses of citizens in apparel, food, furniture, etc." Prohibitory liquor laws are not enacted to limit or restrain extravagant expenditure. That is not the evil which the law seeks to remedy. To be sure. such a law involves the prohibition of expenditure for liquor, but this does not constitute it a sumptuary law. As well might we call a law prohibiting the sale of obscene literature a sumptuary law because it involved incidentally a prohibition of expenditure for such literature. A prohibitory liquor law is a police regulation for the prevention of disorder, crime, and immorality. Mr. Amasa Walker, certainly a distinguished and accomplished scholar, has recognized the distinction existing between these two classes of laws. After showing that sumptuary laws always have and must continue to prove a failure, he says: "But all these furnish no conclusion against the regulation of public morals and manners in things that affect the happiness and safety of the community. It is no longer legislation to supplement the wisdom of the individual or instruct industry. It becomes the defence of the general good. It is not a breach of personal rights, but the safeguard of public liberty. If there is any habit or practice which brings disease and suffering and dis-

¹ 4 Blackstone's Com. 170.

⁹ Kent's Com. 330, n. b.

order, which abridges the power of labor and the span of life, which inflicts misery upon the innocent and unoffending, which entails expense upon the whole community for the charge of pauperism and the punishment of crime, there can be no doubt of the *right* and *duty* of the people to protect themselves, through the power of their government, by the most severe and effectual laws that can be devised. To deny this is to deny the validity of government itself." ¹

3. The third and last objection we care to consider is that made by a class represented by Mr. Bishop in the last Constitutional Convention in the State of Ohio, when he said that when he contemplated "the misery it [the traffic] entailed on the one hand, and the part it played in the national finances on the other." he was "not ready to sacrifice and destroy all the wealth and influence which are at this time invested in this branch of commerce." Such an objection as this may commend itself to a politician willing to measure the immaterial with the material. But it certainly will not commend itself either to the head or the heart of a statesman, or of an enlightened and Christian people. When a deputation of brewers waited on England's great premier to remind him of the loss the revenue would sustain by any further restrictions on the liquor traffic, Mr. Gladstone's reply was: "Gentlemen, you need not give yourselves any trouble about the revenue. The question of revenue must never stand in the way of needed reforms. Besides, with a sober population, not wasting their earnings, I shall know where to obtain the revenue."

The internal-revenue receipts of the United States for the fiscal year of 1879 were as follows:

Distilled spirits	\$52,520,248
Fermented liquors	10,729,320
Tobacco, cigars, and snuff	40,135,002
Bank and bankers	
Adhesive stamps	6,237,537
Miscellaneous sources	577,802
	\$113,398,792

The revenue derived from the sale of liquors is therefore a

¹ Walker's "Science of Wealth," 407.

very important part of the national finances, and yet the Prime Minister of the United Kingdom, knowing that that revenue was an equally important factor in the British finances, very freely declared that he would "know where to obtain the revenue from" if he only had "a sober people, not wasting their earnings." Eliminating from the problem the misery, crime, and pauperism which the traffic involves, and looking at it from the purely material standpoint, it may be safely affirmed that the material interests of the country could not be better subserved than by transferring the capital employed in manufacturing intoxicating liquors from that channel to other branches of business. It is a well-known fact that over \$700,000,000 of capital are invested in this business, and that only two and a half per cent of the vast capital employed in the production of these liquors is returned as wages to the laborers engaged in their manufacture. On the other hand, in the other branches of industry it is said that the average return to the workingmen is thirtytwo per cent of the capital involved. In one branch of industry, that of the manufacture of pins and needles, ninety per cent is given to the hand that works for their production. In the one case there is a diffusion of wealth, in the other a concentration of it. It will be readily conceded that a diffusion of wealth among the laboring classes has been the dream of the highest statesmanship.

CONCLUSION.

While the friends of the legal prohibition of the liquor traffic are justified in their belief that the principle which they cherish is just, that the law which they seek to enact is constitutional, and that the objections which are made to the realization of their plan in action are, for the most part, begotten of ignorance or of a captious disposition, it nevertheless becomes them to bear well in mind the great historic fact that no great social evil was ever thoroughly remedied by the mere enactment of a law. The majesty of the law is, in and of itself, insufficient. Offences are repressed, not by the severity of laws, but by the certainty of their execution. When Mr. Justice Blackstone wrote his commentaries there were no less than one hundred and sixty

offences punishable with death; yet it was a fact, which many have called attention to, that offences not only failed to diminish but actually increased in number. In 1624, when some chemists of Paris, cutting loose from the Aristotelian system, began to teach the "experimental" method, the Faculty of Theology beset the Parliament of Paris, and the Parliament prohibited the teaching of this new method under penalty of death. Such a law could be enforced at that day, but could not possibly be to-day. Law to be effective needs to be energized by an aroused and enlightened public opinion. It was a knowledge of this fact that kept Solon, altho clothed with the supreme authority, from giving his fellow-citizens those laws which were ideally the best, but only the nearest approach to such laws as they were able to bear. And this one fact would alone have entitled him to be numbered among the seven wise men of Greece. Buckle, writing his History of Civilization, has shown how the error of all ardent reformers has been their too great eagerness to effect their purpose. Those who have read history wisely have learned that it will not do to permit the political movement to outstrip the intellectual.

The future is full of promise, and we may look confidently forward to the full fruition of our hopes. The battle is being fought for good government, a higher civilization, and a happier country. The progress of truth, knowledge, and morality is irresistible, and therefore the outcome is not doubtful. know," says John Bright, "that science and education, and morality and religion, and all the great forces which move good and wise men are gathering to this conflict." It is a pity that in the conflict we in this country cannot have the assistance of the public press. It is the misfortune of the country that while we have, in the language of the Constitution, a "free" press, we do not have an independent one. In England, however, so we are told by an unwilling witness, the cause has become so strong that the English press is afraid to oppose it. Almost thirty years ago there was organized in Great Britain "The United Kingdom Temperance Alliance." Many of the leaders in church and state connected themselves with the society, and ever since have zealously labored to obtain the legal prohibition of the liquor traffic. To assist them in this work they first

raised £50,000, and at another time £100,000. "In a word." says the historian Molesworth, "they diffused information and prosecuted their agitation with a degree of vigor and success which has been only rivalled by the great anti-corn-law agitation." "Wherever its meetings were held," says Wilfrid Lawson, Bart., M.P., "and its advocates allowed a fair hearing, its principles were endorsed by enormous majorities, and I suppose even its bitterest opponents will admit that at the present time, amongst those who may be called the aristocracy of the working classes, it is decidedly among the most popular and enthusiastically supported political associations of the day." "The national instinct has been stimulated," recently exclaimed John Bright on the floor of the House of Commons, "and enlightened on this question, and the national conscience has been so awakened that it will never sleep agair, until a great and substantial change has been effected. . . . I think nobody can say that the consciences of the members of the House of Commons can fail to be touched by the consideration of this great and solemn question." The great Liberal leader was not mistaken, and in June, 1880, the Permissive Bill, for which the English prohibitionists have labored for thirty years, passed the House of Commons by a decisive majority. The history of the movement in Great Britain inspires the hope that the day is not far distant when we shall have in each of the States in our American Union a prohibitory liquor law, the warp and woof of which shall have so far become a part of the daily thoughts of the community that its successful enforcement will have removed "the greatest of the social evils."

HENRY WADE ROGERS.

IS THOUGHT POSSIBLE WITHOUT LANGUAGE? CASE OF A DEAF-MUTE.

THE relation of thought to language has engaged the attention of philosophical thinkers from the earliest times. And now, in the discussion of the Darwinian theory of evolution, it has come into new prominence, in its bearing upon the question of the difference between the brute and the human intelligence. This theory admits a difference only in degree, and not in kind. It does not take the quite extreme nominalistic ground, which makes a name, or word, to be the essence of a general notion,—since it claims for the brutes some sort of capacity for general ideas:—but it fully adopts the dictum of Condillac, that the art of reasoning is reducible to "l'art de bien parler," is nothing other than "une langue bien faite." Language it views as an organon, which serves, however, not as an instrument employed by the reason, but which constitutes, in its working, the reason itself. In short, the intellectual superiority of man depends essentially on the possession of language, and language is the product of faculties which man shares with the brute, only more highly developed in him. (Darwin: Descent of Man, Part I., Chaps. II. and VI.; Huxley: Hume, Ch. V.)

Prof. Max Müller has contended most strenuously, and with a profuse expenditure of erudition, that the nature of language, as disclosed by the researches of comparative philology, furnishes a triumphant refutation of the Darwinian views. The earliest roots are grounded in general conceptions: the names of objects, such as horse, man, bird, tree, etc., spring from roots significant of some general attribute of the species or class to which they are applied. Not only is a general conception the essential constituent of the word, but it is, he maintains, impossible of existence except as realized in and by the word—it is the life of

which the articulate or other symbol is the body. And he draws the conclusion that the capability for general conceptions is a special faculty, differing in kind from anything manifested by the brutes, and therefore not to be accounted for as the product of evolution.

The argument, however, amounts to just this: that, because language begins with general ideas, therefore general ideas begin with language. It is plainly a non sequitur. As an argument, it is, indeed, worse than a failure: the very interesting and instructive facts adduced by the learned professor may fairly be taken so as even to lend their weight to the opposite side. What a thing begins with may be what it springs out of, and may have prior and independent existence.

In this and in other similar discussions, reference is made to the case of infant children and to that of uninstructed deafmutes. On the Darwinian view, children and deaf-mutes cannot be accorded the possession of any mental power or any form of mental action that distinguishes man from the brutes. (Huxley: Hume, Ch. V.) Prof. Max Müller is, so far, at one with the Darwinians, in that he ranks the mental processes of children and deaf-mutes in the same class with those of the brute- animals. Thus he says (in writings already referred to), "The uninstructed deaf and dumb, I believe, have never given any signs of reason, in the true sense of the word." "Brutes" are "irrational beings simply in the sense of devoid of forming and handling general concepts." And, "according to those who have best studied the subject, it is perfectly true that deaf and dumb persons, if left entirely to themselves, have no concepts, except such as can be expressed by less perfect symbols—and it is only by being taught that they acquire some kind of conceptual thought and language."

Philosophers of the ultra-nominalist school would, of course, concur in relegating the mental processes of untaught deafmutes to the same category with those of the brute creation. Archbishop Whately expresses their views in words as follows:—

[&]quot;A deaf-mute, before he has been taught a language,—either the finger-language or reading,—cannot carry on a train of reasoning, any more than a brute. He differs, indeed, from a brute in possessing the mental capability of employing language; but he can no more make use of that capa-

bility, till he is in possession of some system of arbitrary general signs, than a person born blind from cataract can make use of his capacity of seeing till the cataract is removed. You will find, accordingly, if you question a deafmute who has been taught language after having grown up, that no such thing as a train of reasoning had ever passed through his mind before he was taught." (Whately: Lessons on Reasoning, I., VIII.)

The importance of an accurate ascertainment of the facts concerning the mind of the uninstructed deaf-mute is sufficiently evident. The following narrative is offered as a contribution for this end. The writer, Mr. Melville Ballard, has been for years an instructor in the Columbia Institution for Deaf-Mutes, at Washington, D. C., and is a graduate of the National Deaf-Mute College, the higher department of the same institution. It will be seen that he himself had, in his early years,—with no power of clothing his thought in any form of language,—put clearly before his mind the question concerning the first beginning of things; and had even come to a vague notion of a power, of a nature undefined, as directing the motions of the heavenly bodies.

The case is an extraordinary one. The only instance on record that makes even the faintest approach to this is given in an article by the late Dr. H. P. Peet, in the American Annals of the Deaf and Dumb, Vol. VIII., (Hartford, 1856), entitled "Notions of the Deaf and Dumb before Instruction." The article reports the answers to a series of questions that had been proposed to the more advanced pupils of the New York Institution for the Deaf and Dumb; and to this among others: "Did you ever try to reflect about the origin of the world or its inhabitants?" One of the replies, by a girl fifteen years old before coming under instruction, was, "I tried to think, but could not do it. I thought the inhabitants came from the South." Another one wrote, "It is impossible for me to assert whether I had ever tried," &c. All the others stated that they had not, or to the best of their recollection had not, reflected at all upon the subject. The Twenty-second Annual Report of the American Asylum (Hartford, 1838) gives replies from pupils to a similar set of questions. To this one, "Had you reasoned or thought about the origin of the world, or the beings and things it contains?" all the answers were decided negatives.

One well-authenticated instance is as good as a hundred for the purpose of determining the general capacity of the human mind in the circumstances supposed. Mr. Ballard is known. to those who know him at all, as a person of more than common clearness of perception and accuracy and vividness of recollection, as well as of a most scrupulous regard for truth; and has been especially careful to include, in this statement, nothing of which he was at all doubtful. There was apparently, in his case, a somewhat precocious development of the reflective faculties; which, tho otherwise unaided, may have found a favoring circumstance in the isolation which shut him in to the company of his own thoughts. It is to be here remembered that the education of deaf-mutes commences ordinarily in immature age—commonly nowadays at as early an age as six or eight years,—and it is to be considered that such glimpses of thought in this direction as may not improbably have been experienced in some instances would not be likely to be retained in the recollection of after years.

We are not unfrequently told by educated deaf-mutes how, in their early years, the more striking and inaccessible objects and phenomena of nature awakened their wonder and curiosity, and were made the subject of various fanciful explanations, not unlike what may have been the germs of some of the myths that have obtained prevalence among men unenlightened by science. Their notions of this sort are interesting and worthy of attention: and are themselves evidence of a grade of intelligence quite above that of the brutes. Evidence of the like import is to be observed in the working of the language-making faculty, which, with the rare exceptions of the idiotic or imbecile, is always exercised by uneducated mutes, to a greater or less extent, through the medium of gestural signs. This is not a mere faculty of acquiring and using language; the signs are, for the most part, originated by themselves, are a creative product of their own minds, and they afford a more striking exhibition of innate endowment than does the mere acquisition of language on the part of those who hear and speak.

It is, however, with particular reference to the question whether thought is possible without language, that attention is

now invited to the case of Mr. Ballard, as related in his own words.

NARRATION BY MR. BALLARD.

"In consequence of the loss of my hearing in infancy,' I was debarred from enjoying the advantages which children in the full possession of their senses derive from the exercises of the common primary school, from the every-day talk of their school-fellows and playmates, and from the conversation of their parents and other grown-up persons.

"I could convey my thoughts and feelings to my parents and brothers by natural signs or pantomime, and I could understand what they said to me by the same medium; our intercourse being, however, confined to the daily routine of home affairs and

hardly going beyond the circle of my own observation.

"My mother made the attempt to teach me to articulate by speaking loud close to my ear, and also by making me look at her lips and try to repeat what she had uttered. There was many a word of encouragement from the mother and many an expression of discouragement on the part of the child; and she persevered, hoping against hope, in this labor of love, until I was five years old, when she gave it up as a hopeless task. She, however, renewed the attempt occasionally at different periods afterwards.

"There was one thing to which she ever adhered, in our relations as mother and child. That was her endeavor for the molding of my character. She did not indulge me in anything on account of my privation. She did not suffer my misfortune to lead her to surrender her judgment to the fondness of her affection. She taught me to treat my brothers and sisters just

¹ He became deaf at the age of less than seventeen months, in consequence of a fall down a flight of stairs. Those who lose hearing at so early an age are not found by their instructors to have any appreciable advantage over those deaf from birth.

Readers interested in the questions of heredity may desire to be informed of the fact that Mr. Ballard comes from a family of the old Puritan stock of New England. His home was Fryeburg, Me. A great grandfather was Simon Frye, who was a lawyer and a judge of some court. Otherwise his ancestors, so far as he knows, have not been members of the learned professions.

as they were to treat me, and especially to respect their property in the playthings which belonged to them. An uncle of mine remonstrated with her in my behalf, saying that my brothers would be willing to gratify my humor. She answered him that she did not wish to have me grow up in the belief that I was a person different from others, having claims superior to theirs.

"My father adopted a course which he thought would, in some measure, compensate me for the loss of my hearing. It was that of taking me with him, when business required him to ride abroad; and he took me more frequently than he did my brothers; giving, as the reason for his apparent partiality, that they could acquire information through the ear, while I depended solely upon my eye for acquaintance with affairs of the outside world. He believed that observation would help to develop my faculties, and he also wished to see me deriving pleasure from some source.

"I have a vivid recollection of the delight I felt in watching the different scenes we passed through, observing the various phases of nature, both animate and inanimate; tho we did not, owing to my infirmity, engage in conversation. It was during those delightful rides, some two or three years before my initiation into the rudiments of written language, that I began to ask myself the question: How came the world into being? When this question occurred to my mind, I set myself to thinking it over a long time. My curiosity was awakened as to what was the origin of human life in its first appearance upon the earth, and of vegetable life as well, and also the cause of the existence of the earth, sun, moon, and stars.

"I remember at one time when my eye fell upon a very large old stump which we happened to pass in one of our rides, I asked myself, 'Is it possible that the first man that ever came into the world rose out of that stump? But that stump is only a remnant of a once noble magnificent tree, and how came that tree? Why, it came only by beginning to grow out of the ground just like those little trees now coming up.' And I dismissed from my mind, as an absurd idea, the connection between the origin of man and a decaying old stump.

"For my knowledge of the motives of my parents in their treatment of me during my childhood, I am indebted to a long

recital, given by my mother about five years ago, of incidents of my early life and the details connected therewith.

"I have no recollection of what it was that first suggested to me the question as to the origin of things. I had before this time gained ideas of the descent from parent to child, of the propagation of animals, and of the production of plants from seeds. The question that occurred to my mind was: whence came the first man, the first animal, and the first plant, at the remotest distance of time, before which there was no man, no animal, no plant; since I knew they all had a beginning and an end.

"It is impossible to state the exact order in which these different questions arose, i.e., about men, animals, plants, the earth, sun, moon, &c. The lower animals did not receive so much thought as was bestowed upon man and the earth; perhaps because I put man and beast in the same class, since I believed that man would be annihilated and there was no resurrection beyond the grave,—tho I am now told by my mother that, in answer to my question, in the case of a deceased uncle who looked to me like a person in sleep, she had tried to make me understand that he would awake in the far future. It was my belief that man and beast derived their being from the same source, and were to be laid down in the dust in a state of annihilation. Considering the brute animal as of secondary importance, and allied to man on a lower level, man and the earth were the two things on which my mind dwelled most.

"I think I was five years old, when I began to understand the descent from parent to child and the propagation of animals. I was nearly eleven years old, when I entered the Institution where I was educated; and I remember distinctly that it was at least two years before this time that I began to ask myself the question as to the origin of the universe. My age was then about eight, not over nine years.

"Of the form of the earth, I had no idea in my childhood, except that, from a look at a map of the hemispheres, I inferred there were two immense discs of matter lying near each other. I also believed the sun and moon to be two round, flat plates of illuminating matter; and for those luminaries I entertained a sort of reverence on account of their power of lighting

and heating the earth. I thought from their coming up and going down, traveling across the sky in so regular a manner, that there must be a certain something having power to govern their course. I believed the sun went into a hole at the west and came out of another at the east, traveling through a great tube in the earth, describing the same curve as it seemed to describe in the sky. The stars seemed to me to be tiny lights studded in the sky.

"The source from which the universe came was the question about which my mind revolved in a vain struggle to grasp it, or rather to fight the way up to attain to a satisfactory answer. When I had occupied myself with this subject a considerable time, I perceived that it was a matter much greater than my mind could comprehend; and I remember well that I became so appalled at its mystery and so bewildered at my inability to grapple with it that I laid the subject aside and out of my mind, glad to escape being, as it were, drawn into a vortex of inextricable confusion. Tho I felt relieved at this escape, yet I could not resist the desire to know the truth; and I returned to the subject: but as before, I left it, after thinking it over for some time. In this state of perplexity, I hoped all the time to get at the truth, still believing that, the more I gave thought to the subject, the more my mind would penetrate the mystery. Thus, I was tossed like a shuttlecock, returning to the subject and recoiling from it, till I came to school.

"I remember that my mother once told me about a being up above, pointing her finger towards the sky and with a solemn look on her countenance. I do not recall the circumstance which led to this communication. When she mentioned the mysterious being up in the sky, I was eager to take hold of the subject, and plied her with questions concerning the form and appearance of this unknown being, asking if it was the sun, moon, or one of the stars. I knew she meant that there was a living one somewhere up in the sky; but when I realized that she could not answer my questions, I gave it up in despair, feeling sorrowful that I could not obtain a definite idea of the mysterious living one up in the sky.

"One day, while we were haying in a field, there was a series of heavy thunder-claps. I asked one of my brothers where they

came from. He pointed to the sky and made a zigzag motion with his finger, signifying lightning. I imagined there was a great man somewhere in the blue vault, who made a loud noise with his voice out of it; and each time I heard 'a thunder-clap I was frightened, and looked up at the sky, fearing he was speaking a threatening word.

"In the year after my admission into the school for deafmutes, at Hartford, Conn., I learned a few sentences every Sunday, such as 'God is great,' 'God is wise,' 'God is strong,' 'God is kind,' etc., and tho I studied those simple words, I never acquired any idea of God as the Creator. I attended the chapel services, but they were almost unintelligible, owing to my imperfect knowledge of the sign-language as employed in the Institution. The second year I had a small catechism containing a series of questions and answers. The first question was, 'Who made this watch?' Answer: 'A man made it.' Second question: 'Who made that house?' Answer: 'Some men built it.' Third question: 'Who made the sun?' Answer: 'God created the sun, moon and stars.' Fourth question: Who made the earth?' Answer: 'God created the earth, sea, trees, grass and vegetables.'

"This method of proceeding from the lower stages of intelligent construction to the act of creation began to clear away, in my mind, the mystery of the origin of the universe. I was now able to understand well the sign-language used by my instructors in their explanations. While the creation of the heavens and the earth was being related to us, the Creator was described as a great invisible spirit, seeing and knowing all things, and at whose creative word the world sprang into existence. As this truth was dawning on my mind, I felt a sensation of awe at the magnitude of the work done by the one ruling mind. From the uncertain perplexing round of speculation in which I had been groping back and back through the dark depths of time, seeking to discover the origin of the universe, I found myself translated into a world of light, wherein my mind was set at rest on this great question; and I felt as tho I

¹ Not literally *heard*, of course. Deaf-mutes are quick to perceive shocks and jars that can be felt, even when so slight as to be unnoticed by those who can hear.

had become a new being. This revelation of the truth seemed to give a new dignity to everything, as deriving its existence from an almighty and wise Creator; and it seemed to elevate the world to a higher and more honorable place.

"It may be said, and perhaps to my reproach, that my inquiring disposition ought to have been satisfied. It was not so; for when I had learned of the creation of the universe by the one great ruling spirit, I began to ask myself whence came the Creator, and set myself to inquiring after his nature and origin. While I revolve this question, I ask myself, "Shall we ever know the nature of God and comprehend his infinity after we enter his kingdom?" And would it not be better for us to say with the patriarch of old, "Canst thou by searching find out God?" "MELVILLE BALLARD."

That there may be no uncertainty as to how far Mr. Ballard may have been aided by signs in his early mental processes, I will add some facts obtained from him by personal inquiry. There were two brothers, of an age not far from his own, with whom he was accustomed to communicate freely by signs, as well as with his mother and sisters, and to some extent his father. A considerable vocabulary of signs, determinate and fixed in form, while retaining the natural significance of their origin, had by degrees grown up and become together with purely natural pantomime the established means of communication. Thus, there were signs, not only for the more common actions of men and animals, but for most of the surrounding objects, animate and inanimate; the signs for objects were derived, for the most part, from some characteristic peculiarity of action and movement, or from some feature pertaining to the shape and figure of the object. The signs for actions, as well as for objects, were specific rather than generic; thus, there was no general sign for kill, or for make. Qualities were indicated, so far as they could be, by significant action; color by pointing to some object,—to the shirt-bosom, ordinarily, for white. Number of days was so many sleeps; years were winters, described by the snow falling and accumulating and then wasting away. Years of age were marked as stages of growth or of increase of stature. There were, however, no specific signs by

which time future was distinguished from time past, the circumstances of the case being, ordinarily, the only means of indication. The occasion for noting periods and points of time would commonly have reference to the future. There were no signs for past or future time.

One or two incidents which Mr. Ballard relates will serve the present purpose better than any general statements. His brother once told him of an occurrence which he had just read the account of, from a newspaper, to others of the family. A man, while out hunting, discovered a squirrel and was preparing to fire at it, when the dog, in his excited caperings, struck the trigger of the gun, and the man was killed. Young Ballard understands the story perfectly, and soon after tries to make it known by signs to the boys of the neighboring school, but without success; he then runs home, and brings the paper and shows them the paragraph, having asked his mother to point out and mark it. Again: his mother conveyed to him the idea that he was to go from home to a distant place for instruction in school, also of his return (for the vacation), after the following fashion:—You go far yonder; ride day night; read-book; write; write fold [as a letter]; I unfold read glad; snow [falling flakes cold white] piled-up [hand gradually raised from near the ground] waste-away [hand gradually lowered,—that is to say, after one winter] you come-back glad.

That the train of thought pursued by Mr. Ballard in his boyhood, as he relates, was not dependent on the aid of signs of any kind, verbal or not verbal, is evident, not only from the scantiness of his vocabulary of signs, but from the fact that he did not make his thought the subject of communication with any one, and that the endeavors of his mother to give him some ideas of the Supreme Being and of a life beyond the grave were an entire failure.

It is clear that the mental processes he describes were of a high order of conceptual thought. They involved the possession and the handling of general notions,—notions, not only of men and animals, but of things as related by succession in a series, and of time as past, and of things as beginning and ceasing to exist. The attributes thus involved were distinctly and definitely apprehended.

The idea of a series of events or things running back indefinitely belongs clearly to thought of the higher order. It embraces in one view an indefinite number of particulars. The members of the series are not, and cannot be for the most part, represented individually and severally; but are apprehended merely as things similar to the small portion that are known and represented individually. They are apprehended also as having individual differences that are specifically unknown. There is in this way brought into exercise what we may call the *compendious mode of thought*: and this it is which distinguishes the higher from the lower operations of the intellect; and it obviously surpasses the capacity of the brutes.

In the matter of general notions, as this term is commonly applied, we are to distinguish two operations, of a widely differ-Merely to recognize a thing newly presented as similar to a thing or things previously known, and in this sense of the same class, is an operation of the lower order. But a thought such as finds expression in a general proposition—that is to say, in a proposition that predicates something of a whole class of objects, or of an indefinite portion of a class—is of a higher and quite different order. The former cannot be denied to the brutes, and it makes up a large part of the ordinary thinking of men. The distinctive characteristic of the latter is that it brings into exercise what I have described as the compendious mode of thought. Whenever we employ a general proposition of even the simplest character—such, for instance, as, All men are mortal; All sheep eat grass; Some men are unwise; Some sheep are black,—we embrace, in a comprehensive survey, an indefinite number of objects, which cannot by any possibility be all at one time individually represented—which we apprehend only collectively as an assemblage of things similar to what we have known individually and at the same time differenced by peculiarities that are not definitely known or represented.

In any use of general words, just so far as the object or objects signified are regarded as appertaining to a class indefinite in the number and the variety of the things it embraces, just so far, and so far only, is the operation of the higher order as above described. Such action belongs to what Leibnitz designated as symbolical knowledge, in his division of knowledge into sym-

bolical and intuitive. Even individual objects that are cognized as highly complex in their composition—as, for instance, a polygon of a thousand sides—can be apprehended all at once only compendiously or symbolically, and not intuitively. Indeed, every complex object of sense-perception may, for the human intellect, be made an object of this kind of cognition. Not till we come to a full understanding of the nature and import of symbolical cognition, and duly emphasize this element and assign to it its rightful place in the operations of the mind, can we justly distinguish between what is peculiar to man and what he has in common with lower forms of intelligence.

There are, indeed, different grades of general notions, according as the points of similarity on which they depend are more or less obvious—more or less easily apprehended, or by faculties of a lower or higher order. The notion of a horse or of a tree is more easily formed than the more generic notion of an animal or of a plant; and far more easily than the notions expressed by such terms as beautiful, wise, true, just, convenient, hurtful, civilized, and others that depend on still more tenuous similarities. But the difficulty lies wholly in the recognition or apprehension of the points of similarity. The difference, if not throughout a matter simply of degree, yet stands upon no single broad line of demarcation. Some resemblances are obtrusive, and obvious to sense-perception and the lowest forms of the understanding: others are more subtle and require a higher development of the intellect or sensibilities, or imply faculties and endowments, it may be, of a distinctly higher nature, in order to apprehend them. The process, in the formation of the general notion, is, however, always the same, except as regards the initial step, namely, the recognition of the resemblance. This once attained, the process of classification, and that of handling the notions thus formed, is in all cases, and may be in all respects, the same. Unless we can find a dividing line that marks off plainly classes of a lower from those of a higher order, we cannot make a distinction between representation and concept, as grounded in the nature or character of the classes to which the notions correspond. Objects the most concrete and the most obvious to sense are subject to the higher functions of thought as well as to the lower operations of intelligence.

On the subject of conceptual knowledge, there are sundry traditional prepossessions that have too long survived and still wait to be swept away. The nominalist contends that, as nothing exists, so nothing can be conceived, but individual objects. We cannot conceive of a triangle that is neither right-angled, acute-angled, nor obtuse-angled; neither equilateral, isosceles, nor scalene:—nor can we conceive of a horse that is of neither this nor that color, figure, &c. Now, while we cannot think of a triangle as being neither equilateral, isosceles, nor scalene, we can think of a group of three triangles that are severally equilateral, isosceles and scalene; and we can think of an individual triangle as one of this group, and yet indeterminate as to which one. We can, further, think of a group made up of an indefinite number of triangles, all alike as triangular figures, but all unlike and differenced as individual triangles,—the group embracing all possible triangles, and the number and the individual differences being of course not all distinctly apprehended. We can think of a single triangle as a some one indeterminate individual in such a group, that is to say, as either this or that definitely represented, or as some other quite indeterminately apprehended. is not more difficult to think of a group of things than of a single thing, especially if the thing be at all complex—and every individual thing is so in a greater or less degree. And the notion of what we call an individual thing is a product of the mind's operation, as truly as that of a group of things. A concept, then, may be defined as the notion of a group of things that are recognized as related by certain common features of similarity, and are apprehended as indefinite in number and in respect to individual variations. When we think of a single thing as coming under a concept, as simply one of a certain class, but otherwise indefinite, there comes into exercise, over and above the symbolical or compendious operation, what, for want of any established designation, we may venture to call the alternative, or perhaps better, the disjunctive, mode of thought,—the thing being apprehended as either this, that, or the other, but undetermined as to which it may be, or as perhaps some one of many others that are not at all represented. So also is it when we think of some, as a not individualized, an indeterminate, portion of a class.

The element of indefiniteness in the concept, as just now defined involves the disjunctive mode of thought.

In symbolical cognition, we have a kind of knowledge that is separated by a wide chasm from all that is of a lower kind, and with no steps for a gradual passage from one to the other.

There is, however, something about such cognition that seems paradoxical, and which perhaps no analysis may be able fully to explain. An essential part of the object of such cognition is known merely as a something that might be distinctly represented and intuitively known. To know a thing in this way is to know it, in some sense, as a thing that we do not know. A part of the object of symbolical knowledge is consciously unknown. We have what is quite similar in the case of efforts of the memory. We do indeed know something about what we are trying to remember, but there is still something that we do not know, and of which we have a notion or knowledge as a thing unknown. It may perhaps be said that, in this part of the object, the notion we have of an unknown something is, itself. simply an extremely general notion. This, however, cannot be admitted: for it would be a self-evident absurdity to explain a general notion, as such, by representing it as composed in part of a general notion of a particular kind or of any kind,—the absurdity of a circle in definition. But, if the element which I have tried to describe, and have pointed out as involved in all rational thinking, should prove to be, after all, inexplicable and mysterious, it is yet real; and is not to be ignored, even if we cannot explain it to full satisfaction. The solution of the difficulty seems to me, however, to be this: that what, by an after act of reflection, may be brought under a general notion is, in and during the act of symbolical cognition, apprehended simply as an individual thing related to actual and possible knowledge as above explained;—and it is known as a thing that is unknown: that is to say, is known positively, as a thing related in the way mentioned, and negatively, as a thing not more specifically known or represented, and thus in this sense unknown.

In the ordinary handling of general conceptions, it is not necessary to have a perfectly distinct apprehension or knowledge of the points of similarity on which the conception is grounded,—

that is to say, of the content of the concept. It is only requisite that the apprehension be so clear as to suffice for the recognition of objects as belonging to one and the same class, and for distinguishing different classes of which one and the same object may be a member. And general words may be serviceably and intelligently enough employed, without even such clear apprehension, provided such apprehension be ready to suggest itself so far as occasion may require.

It is requisite for a general conception—is necessary in symbolical cognition—that there be something, either presented or represented to the mind, upon which to hang—by which to hold that which is not represented, and all that which is compendiously and indeterminately apprehended. Words serve in this way and to this end; but along with the word and serving the same end, there ordinarily goes something more—some mental image, or representation. Such image, in the case of a given word, will not, ordinarily, be the same for different persons, nor for the same person at different times. It will commonly embrace, together with more or less of the marks or characters common to the class, others which are accidental and peculiar to certain individuals within the class. For objects having visible form, it may be a shadowy outline of the figure characteristic of the class, or it may be a distinct picture of some individual that is familiarly known. With the same person, it may, as I just now said, vary from time to time: thus, to one who had just before attended a horse-fair, or a horse-race, the word horse could hardly come into mind at all without suggesting the image of some of the individual horses he had so lately seen. The word savage, or barbarian, probably suggests to most minds an image that is quite special, or even individual, and that is consciously inadequate, and also consciously includes what is unessential, as measured by the real and proper meaning of the word; and in other instances the case is the same. Now, the image that thus goes with a name can serve as well without a name. That is to say, it can serve for thought; tho, of course, not for expression. For some orders of conceptions, a name, or some determinate symbol, is, as concerns thought, of more importance, and for others, of less. The name is not in any case essential to the formation of the general conception; the application of the

name comes of necessity after the formation of the conception.

If there were a convenient term by which to designate the determinate and represented part of a general conception (aside from the name), as distinguished from the indeterminate and unrepresented part, it would help to relieve one of the difficulties with which the treatment of this subject is beset.1 The thing to be designated is a shifting and variable thing: not only different for different persons, but changing even from moment to moment as one thinks more carefully and intently and apprehends the conception more distinctly. It differs thus from the mental representation of a name, inasmuch as the latter is a more fixed thing than the former commonly is. It differs also by ordinarily including more or less of the distinctive attributes that mark the given conception:—in so doing, it is made to be something more than merely an internal symbol, something other than a bare sign, inasmuch as it includes more or less of what is signified.

To disprove the doctrine that a word, or name, is essential to the existence of a general notion, I have now to offer an argument which, I think, will be seen to be quite unanswerable; tho, strange to say, it has, unless I greatly mistake, never been brought forward in all the interminable discussion to which this subject has given occasion. What is a word? When we speak of the word horse, man, or any other,—when we say "this word," or "that word,"—we mean, not a single, individual utterance, at a particular time, nor a single copy in writing or print. When a word is repeated in speech or writing, we call it the same word; evidently it is not the same individual thing. Not only so, a word admits of great variation in pronunciation and voice and tone and manner of utterance, when spoken, and in form and color, when written or printed, while it is still recognized as the same word. When we call it the same, we mean simply that it is fashioned after the same type—marked by the same general characteristics;—just as we may say, of two horses, "this is the same animal as that," meaning, of course, an animal of the same species. The difference in the word horse, from the

¹ Concept-image, or concept-phantasm, is perhaps as good a term as can be devised.

mouth of two persons, may be fully as great as that between two actual horses. We know a given word—considered now with reference to the external form—simply as a thing of a certain type to which every single instance is conformed. It is thus a general object of thought, and the notion we have of it is a general notion, and it is only through such general notion that we recognize the word as the same in the repeated instances of its occurrence. We have really to acquire a general notion of the external form of a given word before we can attach meaning to it and have it as an auxiliary to a general notion of any sort. But, the notion of the word, being thus a general notion, would by the doctrine in question, require another word to constitute it such—which we know it does not,—and that, again, would require still another, and so on, in a regressus ad infinitum That all this should ever have been overlooked is owing mainly to the ambiguous use of this, that, the same, &c.

Now, an actual horse is an object of sense-perception, and of representation in memory and imagination, just as is the word horse. And a general notion of the one has no more need of extraneous aid for its apprehension than that of the other. The doctrine here opposed is that at least the mental image of a word is an indispensable element in the concept. The truth, and the whole truth, is that words and the mental representation of the same bring with them, on many accounts which need not here be specified, immense practical advantages;—and the same is true, in a greater or less degree, of any other uniform set or system of symbols. But this does not in the least affect the validity of the argument just presented; the bare statement of which carries the evidence of its conclusiveness.

It would hardly be proper to pass without notice the explanation of general notions that has recently been put forth by Mr. Francis Galton. He is favorably known as an experimenter and an author who has contributed to physiology and to psychology some valuable concrete facts. For this we can thank him without accepting all his inferences and reasonings. He has invented a method of obtaining, by photography, what he calls "composite portraits." By means of successive in stantaneous exposures, very faint and singly imperceptible impressions of the features of a number of persons are super-

imposed, and thus a picture is obtained that gives a general average of all, only the common traits being distinctly brought out, and the individual diversities being indistinct or evanescent in proportion to the infrequency of their occurrence. When the individuals are of a common type of feature, as, for instance, by family resemblance, or as when character is written in the lines of the face in the case of certain criminal classes, it has been found possible, by a proper selection of specimens, to bring this common type distinctly to view in the composite portrait. All this is, so far, interesting and not without value. But, as is natural to one in the flush of a successful discovery, Mr. Galton has conceived an exaggerated estimate of the importance and the various applicability of what he has produced. In particular he thinks it of value as illustrating the mental process of generalization. The matter derives additional importance in consequence of the endorsement of the idea by Mr. Huxley, in his recent sketch of the life and philosophy of David Hume (Chap. IV.). Mr. Huxley, as does Hume. recognizes nothing as existing in mind other than impressions and ideas; the ideas being copies of impressions. He ranks "abstract or general ideas" under the category of "memories;" and defines them particularly as "the generic ideas which are formed from several similar, but not identical, complex experiences." They are a result of the repetition of impressions from individual objects; the common features being thus blended together and mutually reinforced by their greater frequency of repetition, while the individual diversities, by their less frequent occurrence, fall away and disappear from the view. This he illustrates by referring to "what takes place in the formation of compound photographs," meaning, of course, the process of Mr. Galton, as just described.

It must, however, be added, in justice to Mr. Huxley, that he gives expression to some misgiving as to the entire adequacy of this explanation, in the hesitating admission conveyed in his remarks on the nominalistic doctrine of Berkeley, as follows:—"But the subject is an abstruse one; and I must content myself with the remark, that the Berkeley's view appears to be largely applicable to such general ideas as are formed after language has been acquired, and to all the more abstract sort of

conceptions, yet that general ideas of sensible objects may nevertheless be produced in the way indicated, and may exist independently of language."

Of this way of explaining general ideas, it is to be said, in the first place, that, even if the analogy should hold good to the extent that is claimed for it, the explanation nevertheless, fails to reach the heart of the matter. It applies only to the represented and determinate part of a general conception: the existence of the other and essentially distinctive part is wholly ignored. In a concept there is something other than a memory—something that is not to be explained as a congeries of impressions, or as the accumulated effect of repeated impressions.

But the analogy is, at best, quite defective, and goes only a very little way. Repeated sense-impressions do not make an idea more vivid; they simply tend to fix it in the memory: faint impressions, ever so many times repeated, never make a vivid With these qualifications noted, there is, indeed, to be recognized a real analogy, so far as concerns certain operations of the memory. That is to say, there may be, in the memory, a blending and a mutual reinforcing of similar impressions. But there is a law of the memory that breaks in with fatal consequence upon the analogy, as concerns general conceptions. Recent impressions are more vivid, and stronger every way, than earlier impressions, and tend to supersede and obliterate them for the time being. According to the memory theory, therefore, individual diversities recently impressed would make a prominent figure in the general idea, or would even wholly supersede it. Moreover, in the compound photograph, the individual impression disappears, or rather in fact never appears; while, on the contrary, individual impressions on the mind may remain perfectly distinct alongside of the general idea to the formation of which they may have contributed.

It is not to be doubted that blended memories of similar things are possible and of frequent occurrence. And, again, it need not be questioned that the naturalist sometimes does, as Mr. Huxley says, make up for his own mind a distinct image which represents, in some sort, the average of a number of varying specimens; he does this purposely, and to subserve for himself a valuable end. But it is not the fact that the repre-

sented part of a concept is usually limited to the common characters, the points of similarity, that go to the making of the class. Most certainly, it is not made up by an average that gives the mean between individual variations.

The illustration, obviously, and indeed confessedly as explained by Mr. Galton, can apply strictly to only a very limited and select portion out of the whole wide field of general ideas; namely, to those of a highly concrete description, and those in which the similarities greatly preponderate over the diversities. What sort of an average, as a result of individual impressions, should we have for such a concept as that of an instrument, or of a thing, or an animal, or even of a person? To make the illustration hold good throughout, it would be necessary also to superadd a neutralizing influence: thus, for instance, in the general idea of a horse, we should have to dispose of the attribute of color in some way not provided for by the analogy of the compound photograph.

Enough, now, of this. It is all of a piece with the various other ways of explaining, or trying to explain, mental phenomena by means of analogies drawn from the material world, which have constantly misled and deluded philosophers and psychologists, as well as others. As for Mr. Huxley, it will not be claimed, on his behalf, that he has given to the facts of consciousness the thorough study that he has bestowed upon the natural sciences. He, certainly, has not, in this department, followed the method of positive science, the rule of induction, which requires, above everything else, a comprehensive survey inclusive of all the facts in the given field of inquiry. Tho his gropings in this field, with David Hume as pioneer, have been earnest and serious, we know that the special studies in the pursuit of which he has achieved success and won renown have lain in quite another region and been concerned with phenomena of a quite different order. The misfortune is that the prestige gained by this success lends weight to his opinions on these subjects, of which he has not obtained a mastery, and for which his special studies tend, in certain ways, to incapacitate him, and which are subjects of the greatest difficulty and of the highest importance.

Before concluding, it remains for us to give some consideration to the case of "our poor relations," the brute animals. As may be inferred from what has been premised, I cannot absolutely deny them the possession of general ideas—cannot exclude them from all that we designate by that term. In a sense they have them; and in a sense they have them not. It is not for the want of a sufficient stock of general ideas, and these of a sufficiently high order, that they attain to no greater proficiency in the way of language than they do. The provision in the former respect goes far beyond their attainment in the latter. In this I agree to a certain extent with Mr. Darwin and Mr. Huxley. It is at another point that the view I take diverges from theirs. So far as it may be possible to reconcile the conflicting opinions, by determining and setting in the proper light whatever of truth there may be on either side, it is desirable, of course, to do so.

It cannot reasonably be questioned that animals of the more intelligent orders recognize multitudes of objects according to their kinds, when new to them as individual objects. knows a bone as a bone and not a bit of wood, even tho he has never seen the same bone before. He knows his own kind from human beings, and vice versa; and knows various other animals as of the kinds of which they are. He knows a gentleman from a beggar; and sometimes an honest man from a thief. He knows what it is to go and come, to fetch and carry, to pursue and to stop, to keep watch; and so of various other actions. He knows things by single qualities: knows them, for instance, as hot or cold, and as having an odor which he likes; that is to say, he may recognize objects, when he sees them, as having these qualities. Domestic animals, too, understand the meaning of many words and other signs of ideas; and it is possible to train them to understand many more than they often do. words and various other signs employed in the case of trained animals are, many of them, entirely arbitrary and artificial. repetition and the law of association they are made to suggest the ideas, just as words suggest ideas to our minds. It is true the words or signs are addressed to them, for the most part, if not solely, in the way of command. But animals are able, themselves, to use signs for the purpose of making known their wants, or at least as a means of obtaining what they want; and the more intelligent and docile can easily be taught to use arbitrary signs in this manner.

We probably can find no evidence that any of the animals can understand language of any kind used in the way of directly communicating information; much less that they can themselves so use it. This may require a more distinct knowledge than they possess, of their own minds and of other minds as knowing agents,—a knowledge that comes from self-consciousness, such as they have not. They can obtain information through signs; but that is a different thing from understanding a sign as made with the intent of giving information.

Their knowledge and use of language is, also, probably limited to single words or other single signs, and to phrases which they apprehend in singleness, without cognizance of the component words or parts of the phrase, and thus without the power of making or of understanding a new combination. Thus, suppose the most intelligent and proficient parrot to understand the two phrases, black sheep and white dog, we have no evidence that from this he would be able to make out, still less to make up, the new combinations, white sheep and black dog. In the article, by Dr. Samuel Wilkes, entitled "Notes on the History of my Parrot as related to the Nature of Language," in the Journal of Mental Science for July, 1879, we find, as the result of his observations, that phrases were apprehended in no other way than as single expressions. This is made quite evident by the occasional incongruous blending of different phrases that included some words in common.

The only faculties mentioned by the writer as concerned in the linguistic performances of this parrot were those of articulation, imitation, and the association of ideas. Any object or circumstance with which a word, or any kind of sound, had become associated, awakened by its recurrence a propensity to reproduce the sound. The utterances were made, however, many times, for purposes such as some of those for which human language is employed.

It is to be remarked, however, that to understand or to produce a new combination is nothing more than to bring one and the same object under two or more general ideas at the same

time; or, it may be, under only a singular and a general idea; and possibly this is not quite beyond the reach of the lower order of intelligence. If, for instance, we suppose a pack of dogs to know each other's names, let the master of the dogs call one by name and command some action, here would be a combination of a singular name with a general word; and this, we may believe, might be understood by all the other dogs as well as by the one addressed, even tho, as a combination, it might be new to some of them. Some well-authenticated cases are related in which dogs have seemed to understand a combination as a combination; and possibly some of the instances were really what they thus seemed to be.

With these mere hints on the subject of brute intelligence, I have simply to remark, in brief, that a very considerable development of language is supposable, with no higher grade of capacity than what may suffice for the recognition of objects according to kinds-for the handling of general ideas to this extent. Moreover, a large part of the ordinary language of mankind requires no higher capacity. But anything of the nature of what we have referred to as compendious thought, and thus of symbolical knowledge, is entirely beyond and cannot be conceived as developed out of the lower intelligence of the brutes. The brutes can infer and reason, after a fashion, from instance to instance, and are thus able to learn something by experience; but they cannot apprehend a general law as such. The mind of man is capable of something higher than what Mr. Huxley calls "potential beliefs of memory," and "potential beliefs of expectation;" higher, even, than these as raised to the dignity of actual belief by being put into a form of words.

Allowing to the brutes the utmost that can be claimed for them, is it not still plain that man has faculties which we cannot conceive as developed out of or as simply exaltations in degree of anything that he possesses in common with the lower animals? We know, if we know anything, that phenomena of consciousness are things wholly unlike matter and motion, whatever we may think of the relation between the one and the other. We know, also, that among phenomena of consciousness there are some wholly unlike others, so that they cannot be conceived

as developed out of them; nor all as developed out of a common We know, for instance, that perceptions of color and colored extension, are, as phenomena of consciousness, quite distinct and different from those of either touch, taste, smell, or sound. Whatever may be the similarity in the way in which the impressions are produced, or in the structure of the organs, and whatever may be the dependence upon organic action,—that is to say, however they may be allied physiologically,—yet, as sensations or perceptions, those of the eye are different in themselves, and imply a special gift or power not implied in those of the ear, or the hand, or the tongue. Is it not thus with the acts of the reason as compared with the working of the lower faculties? That the two have some elements in common does not prove them to be throughout of the same order, or render it possible for one to be developed out of the other. And if the eye of the soul, the higher reason, by which we look through the universe of things, cannot look in upon itself and clearly discern its own nature and its own processes, we ought not, therefore, forgetting what it does, to deny its essential superiority, and to assimilate it to those lower and subsidiary faculties which we can bring under its scrutiny. That by which we understand all things—must it not be of a nature essentially superior to aught that is understood by it?

If man has special endowments which set him in a rank above all other creatures on this globe of the earth, it cannot be well for him to renounce, disown, or barter away his birthright. Would not a true science, that should comprehend all the phenomena and all the facts, be able to characterize man by some other marks than as the two-handed family of the Primates?

The design of this article was to present the facts of an individual case. The remarks into which I have been led, at greater length than I intended, have been added, not, certainly, with any idea that they amount to a thorough discussion of the subject, but as suggestions, offered with the view of contributing towards clearing away some errors of long standing, which have made this subject a so fruitful, and at the same time so fruitless, theme of disputation.

SAMUEL PORTER.

PRESIDENTIAL ELECTIONS AND CIVIL-SERVICE REFORM.

E have very little light, from history or tradition, upon the conception formed by our constitution-makers of the executive office which they created. It has been asserted, with great show of reason, that they did not know what they were making. The best suggestion we have in regard to their intention is in the assertion that they made the office to fit General Washington. Washington found that a great number of questions of detail arose in the office, in regard to which he was able to mould it according to his judgment of what was expedient. He established certain precedents. Jefferson rather ostentatiously overthrew many of the precedents which had been established, and others have followed his example, both in overthrowing precedents and introducing innovations. There has, therefore, been no steady tradition moulding the office, as there was no close definition to control it from the outset.

It seems, however, that the theory of the presidential office in the minds of the constitution-makers was substantially as follows: They took the view of the English constitution which was held by the Whigs during the first half of the last century. They assumed that the chief executive might have, and ought to have, certain prerogatives. If he were a king, he might be incompetent to exercise these prerogatives, or might abuse them. If he were an elected officer of a republic, he would, of course, be selected for his competency, and he would only hold power for a limited period, and by a defeasible tenure, so that abuse would be guarded against. Here there were two points of detail—the chief executive could only be named by an election, and he must hold office only for a limited period. In

regard to the election, it is obvious that the constitution-makers never intended to provide for a grand democratic mass vote, in the nature of a plébiscite. They feared intrigue if the election were committed to Congress, and they thought that a great mass vote (if they ever conceived of such a thing) would be unwieldy and unsuitable. The election was to be by States, by an assembly of notables in some respects analogous to Congress, vet guarded against intrigue by the provision that they were to meet only in their separate States. Viewed upon the surface, this might seem to be a very ingenious and satisfactory system. In fact, we know that the history of this device has only illustrated the futility of all such devices. The device has only served to offer the material on which the social, political, and economic forces at work in our society—what we might call the genius of the nation—has wrought itself to accomplish its own ends. We have no unwritten laws. We do not rely on tradition, precedent, and prescription; but some "unwritten laws" have been developed over and around this electoral machinery, for the purpose of wresting it into a thoroughly democratic shape, which are the most inexorable laws of our political order. The political and social sanctions of those laws are so strong and sure that no one will break them.

As to the period of the presidential office, the constitution-makers were hedged in between the difficulty of putting an end to a bad administration within its term, on the one side, and the disadvantage of frequent elections, on the other. In providing for a four years' term, with re-eligibility, they seemed to have hit upon a wise and moderate solution of the problem.

In experience it has been necessary once to amend and reconstruct the machinery of presidential elections, and there has scarcely been a time when some amendment has not been pending in Congress which proposed to do away with the electoral college, to blot out the States as organs in the election, to shorten or lengthen the term, or to do away with re-eligibility, to say nothing of propositions to entirely alter the character of the office. These propositions (except the last class) have been serious, and have received attention as something more than the vagaries of political speculators or the whims of discontented persons. We know that there has been enough in our

experience of the working of the plan to call for modification and improvement, if only public opinion could crystallize into the conviction that certain specific modifications are called for. I am not concerned in the present paper to express my opinion of the propositions which have been made; but it is worth while, in passing, to remember that, according to all experience, it is better for political institutions to be simple and direct, and that, however one might disapprove of the theory of selecting the chief executive by a great mass vote, if we are to have that arrangement in fact and effect, it is better to have it openly and plainly than covertly and by indirection.

In fact, then, the intention of the constitution-makers has gone for very little in the historical development of the presidency. The office has been moulded by the tastes and faiths of the people, and it interests us now to note what has been made of it. The most interesting and important question which can be raised in regard to the theory of this high office, as it has existed in history, is whether the President is the head of the nation or the head of the party. Many Presidents have shown a desire to construe the office in the former sense. Any man who reaches the presidential chair, no matter by what means. and no matter what may be the calibre of the man, is sure to feel a noble desire to make a record for statesmanlike success of a high order. His position is historical. He is sure of a place of some sort in the annals of the nation. He would be a strange man who did not care to make this place an honorable one. The position has about it also elements of grandeur, romance, and sentiment which cannot fail of effect on most men. has any good stuff in him, such an office must appear to him a great chance and a great responsibility, and it must inspire a desire to be worthy. All this expands the conception of the office beyond that of a party leader, even of a prime minister. I think we all hold a conception of the office, according to which it is more, altho we cannot tell how much more, than the leadership of a party. The minority party are not out of the nation. They are not without rights and interests which are under the national protection, and in regard to which the President is the organ and representative of the nation. There are also often public functions which involve no party questions, in regard to

which unanimity is essential to propriety, and where the party leader cannot act with the proper effect because he brings party amities and hostilities with him in spite of himself. In England it is often necessary in such cases for the prime minister to confer with the leader of the opposition. We have no analogous In social matters the same difficulty presents arrangement. itself. Something of social leadership seems to belong to the presidential office. The ornamental or dignity element is reduced to its lowest terms, but something of it remains. This element. however, belongs to the civil head of the nation, not to a party leader. These points are of small importance compared with a wide and statesmanlike view of policy, which would seem to belong to the presidential office, if the President is anything more than a party leader. We can understand the position of a constitutional king who holds aloof from parties, or uses an independent position to moderate excesses, and we can understand the position of a prime minister who leads a party and enforces a policy: but an American President, if he tries to be more than the prime minister and less than the king—if he tries to moderate, soothe, and arbitrate instead of leading and fighting-assumes a most ambiguous and difficult duty. Presidents have tried it. No President has ever succeeded in Some have fallen between two stools: others have been condemned as traitors to their party, and have passed into history under unjust and contemptuous condemnation; others, after a short trial, have surrendered to party control. Washington had the best opportunity of trying the "head-of-thenation" theory. He was, in a certain sense, bound to try it, and he did so; but he was a conspicuous example of falling between two lines of policy and failing of both. A President who has no party must try to carry on the government without a party, and that is plainly impossible.

At this writing, an administration is drawing to a close which no doubt enjoys, in the opinion of the great mass of the people, the judgment of being a clean, respectable, and satisfactory administration. If it had not been so, what points of attack it would have offered to an opposition outraged by its defective title! Yet this administration is hated and despised by the politicians. It is, therefore, weak. It has an air of Philistine

goodness and imbecility. It will enjoy no honor or credit in history. It resembles that of John Quincy Adams in many respects, and is inferior to it in some respects, but it will probably rest under much the same unjust misapprehension and contempt. In fact, Mr. Hayes' administration could not have carried us through any period of political struggle. It probably benefited by having to deal with an opposition Congress.

All the tendency has been to make the President the leader of a party, or perhaps, more strictly, the standard-bearer of a party who goes where the leaders direct him. If he does this, he has a peaceful, smooth, and prosperous path. He finds also a consistent position, which he and others can understand. He puts himself in a position which has a moral basis in the character and relation of political institutions.

So soon as we have reached this point, we see what a presidential election is, and how the whole of our political life centres around these periodical conflicts. Ambition, love of power, civil emolument, and greed of gain have been the great moving forces in politics under all forms of government. It is a childish hope to expect that "republics" are to be free of greed and vanity. They only have their own forms of greed and vanity to deal with. Political power and civil emolument, under our republican system, depend either on elections or on patronage, and if elected officers exercise the patronage the two are combined. The patronage becomes the force which moves the political machinery, of which elections are the central and most important part. Patronage is power to him who wields it, and emolument to him who receives it. The action and reaction are therefore equal, and the circuit is complete. The scattered forces concentrate in the election on an effort to elevate a certain candidate to power. On that candidate's power are centred all the hopes of all his supporters. From him, again, streams out to them the gratifications of greed and vanity which consolidate their ranks for the continually recurring struggle.

The presidency is the centre of party organization and the crown of party effort, because it is the greatest organ in the vast political organism of the country. State and city politics are interwoven with it. The federal officers manipulate the local politics in order to prepare strength for the presidential elec-

tion, success in which will perpetuate the same corps of federal officers. The patronage therefore reaches behind the Congressmen also, and they must either control it or be controlled by it. It becomes the power by which the President urges a policy on Congress, or a power by which the Senate coerces the President. It becomes the bond between the executive and the legislature, which the Constitution very mistakenly endeavored to sunder and to put into an affected attitude of indifference and independence towards each other.

What follows from this is that the presidential elections are conflicts renewed every four years to see which of two sets shall have possession of the organism described. The system of electing the chief executive of the nation every four years, and the abuse of the civil service to stimulate political work and to reward political work, are interdependent, and are inextricably interwoven with each other. As far as I can judge from conversation with experienced politicians, it is because they know that, in fact and practice, what is called the abuse of the civilservice is just as essential to the system of elections as steam is to the locomotive, that they cannot understand what the civilservice reformers are talking about. I am so far in accord with the politicians that I do not see how the civil service is to be reformed so long as the chief executive office is put up to be struggled for every four years. It is a very significant fact, as pointing to a true connection in nature and adaptedness between the system of party republican government and party abuse of the civil service, that the French are being led by the logic of their new institutions to methods of party proscription in their civil service.

I have said that the presidency is not bound about by any firm traditions. It is crude and unformed in many respects. The century which has elapsed has not sufficed to establish any firm grooves for it. Hence it is anomalous in many of its details, and it includes inconsistent principles and relations. The firm developments which have been forced upon it have lain in the direction of its partisan value and efficiency. In regard to that, a steady sequence through all administrations of all parties may be traced. In no respect has the steady partisan development been more remarkable than in the presidential elections. In

we must have hung upon the slow returns from California for enough margin to establish the election. What controversy and chicane might we not have seen renewed? The blunder in Indiana by which the Republicans lost a vote also shows on what contingencies a close election might turn. It is to be noted that whenever a contested election occurs, it will not turn upon the vote of an old State, where methods are sure, communication rapid and open, evidence plentiful, etc.; but on some frontier State, where returns come in slowly, methods are loose, and technical questions, on which there are two good sides, are plentiful. The fourth presidential election ever held issued in a contested election. Fortunately the seat of government had just been removed to Washington. If it had still been in Philadelphia, the mob of that city would probably have settled the question. In 1876 we escaped by a coup d'état from another contest. It is living in a fool's paradise for a free selfgoverning people to go on from one election to another, congratulating themselves that they have escaped the peril again this time, but taking no steps to avert a political calamity of which we have had two warnings, and which is the greatest that can happen to us. Why is it anything but a question of time when we shall have another contested election?

Any one who will look back at the history of our presidential elections will see by what steady strides the art of electing Presidents has been perfected. Each new election has seen more comprehensive and more pertinacious generalship. Every part in the machinery of the campaign has a history. The conventions, the committees, the platforms, the campaign fund, the stump-speaking, the campaign literature, the campaign songs and singing, the torch-light processions, the semi-military clubs, the banners, and the mud-machines, have each a history of its own. Each organ or engine of campaign work has been developed by itself; and as each in higher perfection co-operates with all the rest in each succeeding campaign, and as each is employed on either side, the expenditure of energy is greater at every election, and the struggle is made more and more intense. Every one of these organs of the campaign bears upon the purpose of perfecting organization, stimulating interest, and concentrating force upon the party victory; that is, upon elevating to power him political institutions must be tested is, whether they attain the result with the least possible expense, annoyance, and loss. Is there not an unnecessary expense, annoyance, and loss, for the end accomplished, in holding a presidential election every four years? How shall we be better off in April, 1881, for getting Mr. Hayes out of the presidency and Mr. Garfield into it? We had Mr. Hayes, and were going on satisfactorily. There was no agitating question before us. Agitation was settling down. Every one was contented except the office-seekers. What was gained by the expense, annoyance, excitement, etc., of 1880?

There is now noticeable, I think, in the public mind, a growing terror of presidential elections. Before the late election it was said, on both sides, that a candidate was wanted who would take the office if he was elected to it. Here was a new conception of the presidential office on the part of those who made this remark, and here was also a menace to the peace of the country in the contingency (which was contemplated in the remark) of a disputed election. With the easy optimism which characterizes our politics, this remark and all its significance have been forgotten: but there are other instances. In one of the best speeches made during the campaign, it was argued, in conclusion, that voters in New York should vote for Garfield because, if New York gave its vote to him, he would be elected without possibility of dispute; whereas, if it voted for Hancock, there might be room for a disputed election. A great newspaper also said, a few days after the election, and no doubt with truth, that the people were greatly relieved to be free from the danger of a contested election. What view of the election was involved in this argument and this remark? Certainly the election was not regarded as the free and untrammelled selection of a chief magistrate, nor as a smooth and harmless means of carrying on the government. It was regarded as a peril. The controlling motives. in regard to it were to reduce it or avoid it, and to get out of it as easily as possible.

That there is this feeling of peril, since 1876, is indisputable. As New York voted for Garfield, there was no dispute in 1880. If New York had voted for Hancock, he would have had just the requisite number of votes, leaving out California. His vote must, however, have included Nevada, a frontier, doubtful State, and

primitive agricultural societies, such as existed here a century ago, it was not difficult to hold these elections. Each State was to vote by and for itself, on different days, in different ways. giving its voice for the executive head of the confederation in such way as it saw fit. There was not then facility of transportation or communication. Life was simple and dull. The mild excitement of a presidential election was pleasant and beneficial. The excitement was not to be compared with that of such an election held simultaneously by ten million voters, with such facilities of communication that the whole nation is wrought up to a common pulsation. The case is far different now, both as regards the excitement and as regards the community which has to endure it. We are now a great nation, with complex and varied interests. The presidential election throws an artificial and injurious excitement athwart all the industrial and other permanent interests of the country. This must be more and more the case as time goes on, and as our society is bound together by the finer fibres which only grow as a nation gets older and more settled. Everything about a presidential election tends to stimulate excitement, to cloud reason, to breed delusions, and to betray good sense. It is held on one day only, and the same day throughout the country. It is concentrated on the election of one of two men-not of a Congress. It is foreseen for a definite period, and prepared for by regular means. It is, therefore, a great disturbance to the country, and it comes about every four years whether there is any real political crisis or not. No doubt the "outs" are fully ready after four years to try again whether they cannot get in, but peaceful and industrious citizens need have little interest in this effort if there is no important question of administration to be put to the decision of the nation.

The mere fact of the campaign and election is a hindrance and injury to business. A business scare is sure to be the accompaniment of every presidential election hereafter. It has a basis of truth in the facts already stated, and it is such a valuable piece of capital to the "ins," who can always trace it to fear of a change, that it is sure not to be neglected. We must, of course, get ourselves governed, and we must do it by the methods of self-government; but the question by which all

from whom, if in power, bounty may be expected by the party in question. No institutions have been invented whose purpose is to make sure of getting a competent statesman into the presidency, or to secure a direct and simple verdict by the voters upon the administration, or to draw out public opinion on any The institutions which had that purpose have perished, or have been distorted to suit the other purpose. short, the life-principle in the presidential election is the desire for power and emolument, and this controlling force has crushed everything else or absorbed everything else. The most serious questions and the most important measures are treated only as means to the great end. Here we have the reason why elections fail of the educating influence which is alleged in their defence. It is open to every one's observation that documents, speeches, and arguments have little effect. Tradition is strong in their favor, but the political managers begrudge the cost of them. Drill and spectacular effect nowadays play a far more important part in the election. The education the election exerts is education in the art of elections, in the tactics of party management, in shrewd and cynical dealing with the weaknesses of human nature, and not in the principles of self-government or the knowledge of public questions. I allege in proof of this the fact that the principles of self-government and the tactics of party warfare are continually confused with each other in the press and on the stump. Party platforms represent the sacrifice of public questions to party interest. In theory, they are statements of party dogmas and convictions. In practice, they have become proverbs for empty phrases and Janus-faced propositions. A model platform is one in which two contradictory propositions are combined in the same sentence, or a non-proposition is so stated that each man may read there just what will suit his own notions.

The student of political institutions knows that they never go backward. He must look in the future for advance along the lines marked out by the past. The Chicago convention of 1880 was certainly a very refined and highly developed specimen of the national nominating convention. The history of that convention is most instructive, but it is now almost forgotten. As soon as the candidates were named, the convention dissolved,

and was as speedily forgotten as the broken shell from which the fowl has emerged. It is a mistake, however, to forget it too soon. The congratulations that "the machine was smashed," with which some of us welcomed the members of the convention home, were too hasty. The triumvirate of "bosses" failed there because, altho their scheme was carefully and skilfully prepared, they had not secured the national committee. The defeat which was inflicted on them was one of those costly victories which educate the enemy, point out his errors, and enable him to ensure victory the next time. The next triumvirate of bosses will have the national committee.

The developments in the use of money from campaign to campaign are a subject deserving treatment by itself, if any one who could command the necessary information would at the same time study the matter. There are three different matters embraced under this head:

- I. The increasing need for money drives the party in power to political assessments. From the politician's stand-point, these assessments are logical and proper. The office-holders should contribute to support the party which put them in place and will keep them there. The election, in this point of view, is the occasion of a periodical tax, or toll, or fine, levied on the office-holder. We have here a specific abuse of the civil service, one which is indefensible, easily defined and reached, and therefore a good object upon which to exercise the initial measures of reform. The fire and movement of the campaign, however, are sure to overthrow this reform. The fears of the office-holder coincide with the interests and desires of the party managers to break over such feeble resistance as the reform has been able to accumulate.
- 2. The use of money for elaborate campaign artifices and machinery reaches sums which no one seems able to guess at. I have not been able to form any conjecture about it which is worth anything. It is certain only that it amounts to millions, and that it is almost a pure waste of capital. One phenomenon which has become very familiar in some of the States has not yet appeared on the federal arena: that is, the man of wealth and political ambition who is ready to spend a large sum to win the presidency. I think that if any one will estimate the cost

of paying all the expenses of all the delegates to a nominating convention, he will be astonished at the smallness of the sum.

3. The illegitimate use of money in the presidential election is something which is known to everybody, but which we agree to ignore and to pass over with certain conventional phrases. It is difficult, of course, to get at facts or to justify general assertions. A correspondent of the *Nation* of November 18th seems to have been quite close to the facts, and to have been very much shocked by them. In view of what we all know, and what any two of us in private conversation will agree upon, it is rather amusing to read the newspaper comments on bribery in other countries. There have recently been some great scandals of this sort in England, which have furnished the text for thanksgivings that we are not as other men are. It is forgotten that these scandals are brought to light by a public investigation whose object is to reach and correct the abuse. Such an investigation amongst us would be considered very "unpractical."

Presidential elections are chargeable with many of the worst errors and mishaps in our history. I have already alluded to the contested election of 1800, which put the newly formed Union to a very severe strain. If there had been no presidential election in 1812, there would have been no second war with England. The tariffs of 1816, 1824, 1828, and 1832 resulted from the bidding of the two parties, in the election years, for the support of the protectionists. The protectionists tricked both parties, and voted for either as they chose, because both voted for protection. In this way the protective policy was fastened on the country in spite of the interest of the nation. and the early set of the people to freedom in trade as well as to every other kind of freedom. The election of 1836 caused the distribution of the surplus revenue in that year. Neither party dared resist a mischievous measure which seemed to contain elements of popularity. Presidential intrigues cost us the war with Mexico, the repeal of the Missouri Compromise, the Kansas-Nebraska Act. and the civil war in Kansas. Presidential intrigues wrought up the sectional misunderstanding until "Yankees" and "Southerners" formed legendary and fabulous notions of each other. It was on account of the importance of the Southern vote to all presidential aspirants that the Southern

"arrogance" and the Northern "truckling" were developed. The politicians found their account in stimulating sectional pride and animosity until a presidential election became the occasion of the civil war. Presidential intrigues in Johnson's administration frustrated the most peaceful and promising efforts at reconstruction, and brought about the carpet-bag era with tyranny on one side and Kuklux outrages on the other. In 1876 we had a very narrow escape from another civil war. The fact that we put up the office of highest power and dignity every four vears to be contended for in an election contest has been the controlling fact in our political history. The question how and by whom to get that office filled has been constantly present, and it has superseded all other questions. Time and labor have been exhausted in the constantly renewed necessity for getting the office filled, and we have not been able to profit by its functions for any length of time before the toil and annoyance of choosing a new man to fill it have recommenced. The time of Congress has always been largely taken up with Presidentmaking, especially in the last session before the election. Between the bickerings over the last election and preparations for the next one, sometimes almost the whole four years have slipped away. Matters of urgent importance must be postponed until after the election. Measures of doubtful expediency must be pushed through to make capital for the election. Measures which were right and expedient might not be brought forward lest they should be troublesome in the election. These delays, makeshifts, and concessions, however, have all passed into the life of the nation and become part of its history. Every such political incident—the thing done or the thing undone—combines with others, produces consequences, affects public opinion, forms a precedent, strengthens or weakens a tradition, and influences the habits of thought of the people. No political incident stands alone. No incident can be brought about temporarily and then set aside. It remains in its consequences and effects, whatever may be done to revoke it. Witness the educational effect of the early tariff laws; the present feeling and prejudice of the people about a national bank; the long struggle which was necessary before "distribution" schemes were finally brought to rest: the secondary effects of violating the compromise tariff;

the real effect of the Dred Scott decision, regarded as a political manœuvre; and the effects of the legal-tender law, passed to meet a temporary necessity. The principle of continuity and propagation has applied fully to all the presidential intrigues which have played so large a part in our history. It is difficult to conceive how different our history would have been if we had had some way of filling the chief executive place without periodical elections.

Presidential elections must also be charged with corrupting the public men of the country. Presidential ambition has been the bane of our public men. Very few of the first-rate ones have escaped the infection of this ambition, and, within the last forty years, it has rioted amongst the third, fifth, and tenth rate ones. As one of the last said some time ago, when he was rallied upon his "chances": "I do not see why the lightning may not strike me as well as any other man." Presidential ambition has forced those who were afflicted by it to do what they would not do, and leave undone what they would do, if they took counsel only of reason and conscience. One after another of them has belittled himself before the nation by his inability to conceal disappointment and chagrin. The eagerness for this honor, on the part of public men, can easily be understood; but it has been a moral disease amongst our statesmen. To offset this evil, we have the proud boast that any American may be President. Do we not pay too dearly for this bit of claptrap? How many of us want to be President? How many of us would surrender our reversion in the office if we could only be sure that no American could become President unless he were fit and competent?

Presidential elections corrupt local politics. State and city politics enjoy favorable chances in the "off-years," as they have come to be designated. The federal office-holder then sometimes relaxes his interference. On the approach of a presidential election, however, everything else has to bend to the organization and labor of the campaign. It is not simply because all persons who are in any degree "in politics" find their interest all absorbed, so that they cannot attend, with free minds, to anything else, but the selection of local officers suffers directly. Local offices are used as makeweights or bonuses with which to win

strength in the great contest, and the momentum of the presidential election carries into many subordinate and local offices party candidates who would at another time have failed because they could not have drawn out the party vote.

Presidential elections act upon timid reforms and newly planted improvements as a storm acts on sprouting plants. The election of 1880 has destroyed all that had been accomplished of civil-service reform during Mr. Hayes' administration. It is said that Mr. Hayes has done very little. In fact, when we consider the nature and difficulty of the task, he has done a great deal. He has not been supported as he deserved in what he has Those who believed in the reform and desired it were bound to understand the difficulty of it, to welcome little beginnings towards it, to take what they could get and nurse it carefully in hopes of more, to appreciate the President's efforts, and to support and encourage him. They have, on the contrary, taken the position of spectators and critics. The beginnings of reform seemed to me hopeful. They were such as might grow if they had time, peace, and toleration. The recurrence of the election has crushed them out. The employés have been assessed, the office-holders have managed the campaign, the rules have been broken over, and we are back again at the beginning, only worse off than before, because the reform has become ridiculous. Now, in politics, when a thing becomes ridiculous before it is widely or fairly understood, it suffers great harm.

The case here stated in regard to civil-service reform illustrates a general tendency. When the election period comes around again, there is a tendency to fall back into the old ruts. Serious issues are excluded so far as possible, since, of course, the parties can be held together more easily, and the election can be managed with less trouble, if old issues are maintained and old methods retained. The considerations which would have great weight in time of peace, and in the undisturbed flow of affairs, seem to be of inferior importance, and one is ready to sacrifice them when an exciting campaign has wrought one up to the point of believing that the main thing "now" is to elect our man. The way free trade was treated by its republican friends during the last campaign was a conspicuous illustration of this. The election acts, therefore, as a blight upon strug-

gling reforms, and as a hindrance to important political measures.

So far, now, I have noticed the difficulties, dangers, and evils incident to the election of the chief executive by a popular vote in periods of only four years. The abuses of the civil service and the obstacles to reform in it seem to be in close and organic connection with this system of providing for the filling of the chief executive office. If the civil service should be reformed as the "reformers" want to see it reformed, presidential elections, and indeed local elections also, would cease to be what they are now. Note what proportion of the voters will take the trouble to vote on a constitutional amendment which may be of the very first importance. If the personal element were reduced, as it would be reduced by the contemplated reform, elections would lose their heat, agitation, noise, and expense, and would be far more sober, rational, and fruitful. On the other hand, if the elections should be made less frequent, the civil service would be reformed to a great extent, simply as a consequence. The workers and office-seekers would either lose or forget their trade, and they could not hold out through a ... long period of delay and hope. Which of the two branches of the evil, the too frequent elections or the abuse of the civil service, may be the best point of attack is yet to be considered. It is evident that for new States out of Europe the republican form of government is to prevail in the future. A monarchy is for us, for a hundred reasons, out of the question. The republican form of government is, however, yet new, crude, and unformed. This is especially true of our own government. For instance, the present session of Congress opens with a hot party fight on a question about the respective functions of Congress and the Vice-President in counting the electoral votes. Centuries perhaps must elapse before precedent, habit, and experience shall have made our system smooth and easy, and shall have so defined its separate organs, and their spheres of activity, that they may act upon each other without friction. We are fettered, as yet, by the traditions of monarchy and by youthful deference to foreign models. We lack the independent energy to deal with our own problems according to the genius of our institutions.

Republican, or presidential, government is weak in two respects. It lacks stability and it lacks elasticity. The continuity of national life is more or less broken at every change of administration, and it is distinctly broken by every change of party. The unity and continuity of the nation need to be not only represented, but sustained and defended against the conception that the majority or the major party are the nation. The more democratic the institutions are, the greater is the need of just this guarantee against an abuse of democracy. Political changes should be brought about by political institutions just when the occasion for them arises, and at no other time. This is what is meant by elasticity or flexibility. When officers are elected for a set period, elections must recur whether there is any political crisis or not, whether there is any real occasion to appeal to the country or not. The perfection of republican institutions will call for improvements or new devices to introduce greater stability with greater flexibility. As we have seen above, any gain in this direction will be a gain also in civil-service reform.

Most students of statecraft turn from our institutions to English institutions for guidance in the way of modification. English institutions have the smooth, steady, frictionless action which is in strongest contrast with our harsh and grinding system. The executive has two organs—the ornamental of dignity organ, which supports the unity and continuity of the nation, and the working organ, which carries on self-government under party organization. The latter organ is designated by the play of institutions upon each other which amounts to a kind of natural selection. The man is elected by nobody, but he is set in evidence by the action of parliamentary and official life during a long period. Every one knows who it ought to be, perhaps even to the sole possible individual, or, at most, within a possibility of two or three. One of these it must be. It can be no one else. This is very beautiful and very captivating, as it is managed in England by men whose social and political training combine to make them moderate and careful to observe "the limits." It does not work well, however, in the English They are far too frequently in the throes of a cabinet crisis. They have governors appointed from England to carry

the dignity part of the executive, an officer for whom we could find no parallel. I have never been able to see how we could graft any part of the English system on ours without entirely giving up ours and adopting theirs.

The French experience with a republican form of government is full of instruction. They have had three Presidents, who have each adopted a different theory of the presidential office in regard to the point I have discussed above; viz., whether the President is to be like a Constitutional King or like a Prime Minister. M. Thiers construed his office as if he had been a minister. He attended the legislature and defended his own policy. MacMahon was elected for a definite term of seven years. He did not attend the legislature. He had a parliamentary ministry. Nevertheless he had opinions of his own. and he tried to bring them to bear on the administration of affairs. The consequence was that he was obliged to resign, in spite of his set term of office, before it had expired. M. Grèvy seems to have assumed the neutral rôle of a constitutional sovereign who reigns but does not govern. He enjoys peace. but is scarcely mentioned in the administration. This series of experiments only confirms political theory and also our American experience. A prime minister is a functionary whose moral basis is consistent, harmonious, and well rounded. A constitutional king is another functionary who has a true moral basis in facts and nature. The former is a party leader. He conducts self-government by party. The latter's first duty is to be out of and above party. A tertium guid, something between these two and partaking of both, is an impossibility. It has no true moral relations, and it will gravitate either towards a constitutional monarch, as the French presidency has done, or towards a party leader and working ruler, as the American presidency has done.

The legislatures of modern times are the real depositaries of the power and will of the State. The centre of gravity of our system tends all the time to settle more firmly in the House of Representatives. Such a tendency is revolutionary as regards the existing constitution; that is, it tends to entirely reconstruct it. It is an interesting subject for speculation whether our House of Representatives would not gain dignity and be cured

of many of its worst faults if it had the power it is always reaching after, and had also the responsibility which must go with the power. That it will win more and more power by virtue of the very fact that it has the most and strongest independent elements of strength in its popular constituency and its power over money, seems most probable. When it really has power, will it submit to the opposition of the executive to a thing on which it has resolutely determined? I think not. All precedent and analogy shows that it will not. How long it may take for the development which has been indicated to work itself out I do not pretend to foresee. It seemed to me that the collision of the Democratic House with the Republican Senate, and then with the Republican President, and the use of "riders" on the appropriation bill, were premonitions of a struggle in which, in the end, the House, if it had a strong majority and a good support in public opinion on the point in question, was sure to win. If, then, this change should be brought about, the presidency would become more of an ornamental office; its power would be lessened; the chiefs of departments would become a true cabinet; the President might, without any reason to the contrary, be elected for a much longer term; it would no longer make any difference if he had no qualities not possessed by respectable mediocrity, and the functions of the political worker would lose importance. This proposition might equally well be stated in another form: We can lengthen the term of the presidential office if we strip it of the most important powers which it now possesses to control legislation, and we can then solve the problem of civil-service reform.

To sum up: We have found that the corruption of the civil service is an historical product of the forces at work in American political life, underthe conditions set by American political institutions. It is not an artificial product. No one brought it about. It was in no program. It is a growth. Its origin and its law are to be sought in facts of human nature, and of the political order, together with historical conditions. It follows that no artificial remedies will correct the abuses of the civil service unless they are such as reach to the remolding of political institutions. The elective system as employed by us, especially the system by which the President is elected, is the institution most in

question. It follows also that the prejudice of those who do not want any change either of spirit or form in political institutions, and who regard civil-service reform as something foreign and hostile to their favorite political dogmas and methods, is well founded. It follows, finally, that the dogmas referred to are false and the methods are mischievous, and that the corrections here and the reform of the civil service must go hand in hand,

WILLIAM G. SUMNER.

EVOLUTION IN RELATION TO MATERIALISM.

THERE are two great modern ideas—ideas which have engaged the largest share of modern thought and formed the basis of the most important advances in modern science—for any mention of which we look in vain in Humboldt's "Cosmos," a work acknowledged to have been a masterly presentation of the condition of science twenty-five years ago. These are the theory of correlation and conservation of natural forces and the theory of evolution. These two theories are distinct, yet closely related; for they both assert the continuity of nature—the one by the transmutation of natural forces, the other by the transmutation of natural forms. The former is now universally accepted, the latter almost universally by scientists, but not yet by all thoughtful men.

Nothing can give a more impressive idea of the rapid change of modern thought than the bare statement of the above fact, for evolution alone embraces one half of all science; and thus in a masterly work of twenty-five years ago, which professed to give a general conspectus of all science, one half of science is omitted.

This may seem to some an extraordinary statement, but it is nevertheless true. As already explained in a previous article, every system of correlated parts may be studied from two points of view, which give rise to two departments of science, one of which, and the greater and more complex, is evolution. The one concerns changes within the system by action and reaction of parts, producing equilibrium and stability; the other concerns the progressive movement of the system as a whole—the pro-

gressive movement of the point of equilibrium, by constant slight disturbance and readjustment on a higher plane, with more complex interrelations. The one concerns the laws of sustentation, the other the laws of evolution of the system. Now, nature as a whole is such a system of wonderfully correlated parts. Every department and sub-department of nature, whether it be the solar system or the earth or the organic kingdom or human society or the human body, is such a system of correlated parts, and, therefore, may be studied from two points of view, which give rise to two departments of science, one of which is evolution. Therefore, since all science is a study of such systems of correlated parts, it is evident that without evolution science would be shorn of one half of its legitimate domain.

There are several misconceptions in regard to evolution which stand in the way of its cordial acceptance, and which, therefore, ought to be removed. The first is a misconception as to its scope. In the popular mind evolution is often restricted to the organic kingdom, or even to one special form of organic evolution, viz., Darwinism. The reason is obvious. The admirable work of Darwin caused the general acceptance of the doctrine of origin of species by derivation and transmutation, and the acceptance of this certainly removed the greatest obstacle in the way of the acceptance of evolution as a general theory of the origin of things; for the stronghold of the doctrine of the origin of things by immediate miraculous creation was the apparent permanency of specific forms. So long as this doctrine was successfully held, a general theory of evolution was impossible. The whole labor of Darwin was directed against this point, and his success here insured the acceptance of evolution as a general theory; and thus finally, in the minds of many, evolution and Darwinism became interchangeable terms.

But evolution is not one special doctrine of one special department of nature—the organic; but a theory involving alike every department of nature. Its truth or falsity, its acceptance or rejection, therefore, is not a light matter affecting the future of one science only—biology; but, on the contrary affects deeply and alike every department of science: yea, the very spirit of all science, *i.e.*, the spirit in which nature is regarded by the scientific mind. The question of evolution is a question of the legitimate

domain of science. It is a question of whether or not science may extend her inquiries to the origin as well as to the present condition of things; whether she may extend her inquiries and push her conquests beyond the limits of the present, either backward into the past, or forward into the future; whether her domain shall embrace all time as well as all space. In regard to the origin of things, it is a question of *immediate* or *mediate* creation. And since by mediate creation we mean only creation by regular laws and according to regular processes, it is finally a question of whether the divine energy operates by law in *creation* Nothing since the birth of science as well as in sustentation. (unless, indeed, we except the heliocentric theory of the solar system) has so extended the domain of science, and so enlarged the intellectual horizon of man. To destroy evolution is to cut off, not an insignificant branch only, but a tap-root of the tree of science, and thus to destroy one half its promised fruit. evolution be indeed a true theory, to reject it is to deprive humanity of one half its intellectual heritage.

A second and far more general misconception is the belief that in so quickly and universally embracing evolution, scientists have shown an improper haste and an unscientific eagerness; that we have here a notable example of the eager acceptance of an unverified hypothesis only because it seemed inconsistent with accepted religious beliefs. On the contrary, it would be difficult to find a more conspicuous example of inductive caution than is exhibited by the history of this subject. A brief outline of this history, sufficient to prove this statement, may not be wholly amiss.

Vague speculations on this subject had been rife from the earliest dawn of speculative activity; but Lamarck deserves the great credit of having, in the early part of this century, first clearly conceived, and first distinctly stated, the problem of the origin of species by transmutation. It is not necessary here to explain his theory. Suffice it to say, that altho his views were elaborated with great and even captivating ingenuity, his *method* was not scientific. The most prominent naturalists, with the great Cuvier at their head, unhesitatingly rejected it. It was ingenious speculation, not cautious induction. It was in conflict with the great body of facts then known. Science was not yet

ready for a true theory. This child of speculation was premature in its birth, and did not deserve to live.

Again: in 1844 appeared a popular work by an anonymous writer, entitled "Vestiges of a Natural History of Creation," in which Lamarck's views were presented with great skill and eloquence. The work produced a profound impression, but was again opposed by all the most distinguished naturalists, especially in this country by Agassiz, and the doctrine of origin of species by derivation and transmutation was again overthrown, and the question for the time closed.

The rejection in both these cases of the theory of origin of species by derivation was in accordance with the true spirit of cautious induction, and therefore right. It would have been a calamity to true science if it had been received. The time was not yet ripe. Two things must first be accomplished—viz., an obstacle in the way must be removed, and a solid basis of facts must be laid. The obstacle in the way was the notion, then almost universal, that there is something not only superphysical, but supernatural in vital force; that vital force is a mysterious something unrelated to the other forces of nature, and therefore the mode of origin of species is unrelated to the modes of origin of other natural forms. The basis to be laid was the true law of succession of organic forms. The obstacle was removed by the general acceptance of the theory of correlation of natural forces. The basis was laid by Agassiz and Von Baer in the discovery of the remarkable correspondence in the successive organic forms, in the embryonic series, the geological series, and the natural history series; or, as it is common to name them now, the ontogenic, the phylogenic, and the taxonomic series. This great law is the only inductive basis of a theory of organic evolution. For its establishment science, and especially evolution, is almost wholly indebted to Agassiz, altho he himself rejected the obvious interpretation of it to the last.

When, therefore, the theory of derivation was again brought forward under a new and better form, and with a vast array of facts, by Darwin, the scientific mind was already fully prepared for it—the time was already ripe, and therefore it was speedily and almost universally embraced, tho not without much discussion by scientists and much opposition on the part of the religious

world. That its birth-time had indeed fully come, is sufficiently shown by the vigor of its growth and the usefulness of its activity—by the prodigious impulse which it has given to every department of organic science, not only stimulating research, but guiding to true results. That the theory is yet far from maturity, that it must be changed in many details before it reaches its final form, is certain; but its life is assured, and its growth to more perfect form is only a question of time.

Now, so long and in so far as the theory of evolution is opposed on scientific grounds, such opposition is healthy and right; but now the opposition is almost wholly on religious grounds, and therefore only hurtful; now we have the sad spectacle of the line between disputants on a pure scientific question so drawn that science appears on the one side and the church on the other. This I cannot believe is the result of unfairness, but of misconception. This brings me to the third most serious and most universal misconception-viz., the identification of evolution with materialism. If we identify evolution with materialism. then the question is no longer one of pure science, and the opposition is natural and right. But the least thought, it seems to me, ought to suffice to show that there is no necessary connection between them. Therefore, the whole effort of the friends of religion ought to be not vainly to oppose evolution, but to disentangle it from unnatural alliance with materialism. This is the main object in this article.

Every age has its characteristic tendency, which is almost certain to run into irrational excess. The characteristic tendency of the present age is undoubtedly materialism. Materialism (or else that modified form of materialism called agnosticism) impregnates the thought and permeates the literary atmosphere of the age. It is a contagion diffusing its germs in the air, and, among those who do not stay at home shut up in their creeds but walk abroad in the outer world of thought and thus come in contact with it, deeply infecting all but the strongest and most robust. It is a fashion of thought, a strong current which sweeps away and bears floating on its bosom all the giddy children of philosophic fashion, *i.e.*, all the active and intelligent, but too eager and unreflecting. If this be the tendency of the age, it is still more the tendency of modern science, for it has been

largely originated and is chiefly directed by science; and among the sciences this is especially true of biology and geology. As a citizen of the age, I have deeply sympathized with its characteristic tendency. As a scientist, and especially as a biologist and geologist, I have still more deeply felt its force. During my whole active life I have stood in this stream of tendency just where the current ran swiftest, and I frankly confess that I have been sometimes almost swept off my feet. But it is the part of reason—yea, of manhood—not to float on the surface, but to stand on the bottom; not to follow a mere fashion of thought, but to test all things, and accept only what is rational.

This tendency is natural, and, in a less degree, has always existed; for materialism is an easy deduction from very obvious facts. But the facts which seem to point in this direction have so greatly accumulated in modern times, that what was before a gentle stream has become a powerful and, to many, a resistless torrent. It is useless, therefore, to quarrel with the tendency. It is right and natural, but only excessive and one-sided. The conclusion is the result of generalization based upon very many facts lying plainly on the very surface of things, but wholly ignoring very many other facts more deep-lying, and therefore less obvious, but not less numerous and even more significant. The generalization is therefore narrow and hasty. See a brief outline of the generalizing process.

The amazing progress in modern times of all the sciences dealing with matter, the too exclusive absorption of the mind in the study of matter, and the increasing recognition of the wonderful properties of matter—more and more wonderful in proportion as we study them more profoundly—leads the mind first to a belief in the *potency* of matter to produce even the most complex and wonderful phenomena, and finally in the *omnipotency* of matter, of itself to originate all the phenomena of nature. Thus, vital force becomes identified with physical and chemical forces, and these in their turn with mere properties of matter, and matter becomes all and in all.

Or again: The rapid progress in recent times of the sciences dealing with the animal body, the study of its wonderful structure and still more wonderful functions, the subtle chemical and physical changes constantly in progress, and especially the close relation which undoubtedly exists between brain structure and mental power, and between brain changes and mental phenomena, leads first to the idea of the potency of brain-conditions as a factor in mental conditions, and finally of the omnipotency of brain-changes to originate all, even the highest, mental phenomena. Thus, not only consciousness and will, but thought. emotion, and sentiment; love and hate, honor, reverence, and worship; remorse, shame, and repentance—all are but names for brain-changes determined wholly by external impressions propagated to the nervous centres. Or we should rather say, in a thoroughly consistent materialism, these higher sentiments—love, honor, reverence, worship; and their opposites—hate, sin, shame, remorse, crime—should no longer exist; for they have existed hitherto only by a mistake, which is now corrected. Our dictionaries must be revised, and all these words expunged, or their definitions changed; our fundamental notions of man must be changed, and all that we have hitherto regarded as his highest part must be blotted out; our society must be reorganized on a strictly material basis, and all the sanctions of law and order In a word, psychology and ethics fundamentally changed. become identified with brain-physiology, and physiology with physics and chemistry, and these in their turn with the properties of matter, and matter again becomes all and in all.

Or still again, and finally: Looking outward and upward on external nature in its broader aspects, in its cosmic relations, observing the beauty, the grandeur, and the order of celestial movements, and the perfect law which controls all, we are impressed more and more first with the potency and finally with the omnipotency of law alone both to originate and to continue all this beautiful and orderly movement, to create as well as to sustain the cosmos. But law by this philosophy is naught else but the eternal invariableness of the properties of matter, and thus nature assumes the attributes of deity, and there shall be no other gods before matter. Thus are we landed finally in absolute universal materialism.

I have said this process is in some sense natural and logical, but it is the result of narrow and one-sided view. The conclusion is reached and held firmly only by shutting our eyes to another view. It is just one half of philosophy. It sees but one

side of the fabled shield. But there is another side. Let us therefore turn it over and look at this also.

Constant dealing with the facts of consciousness to the exclusion of facts of external nature, a constant shutting of one's eyes and stopping of one's ears, and looking intently ever inward. and never outward, leads naturally to an extreme opposite philosophy. Observing the potency of internal states to modify external phenomena—i.e., to modify the appearance of external objects—we are gradually led to suspect, and finally to admit, the omnipotency of the internal to create the external. process is somewhat thus: First we see that sense-impressions, internal states, are signs—in fact, the only signs we have—of external things which are supposed to produce them. Next. we discover that internal states are not only mere signs, but often delusive signs-signs of things which have no objective existence. Then we begin to doubt whether they are aught else than delusive signs; whether there be any objective realities corresponding to the internal signs. Thus, finally we are led to look on the external world as naught else but the external projection of internal states—a mere phantasmagoria of trooping shadows created by the mind, and of which we can never have the assurance of substantial reality. And thus we land finally in absolute idealism.

This may seem to most persons far more strange, unnatural, and unreal than the other extreme; but to the philosophical thinker it is far more fascinating, and even the more logical of the two. A pure materialism may be in some sense more natural, but it is so only because it is inherited from our lower animal nature, and its facts therefore lie on the surface. A pure idealism is far more fascinating to the acute thinker, because it is born of our higher rational and distinctively human nature. From the logical point of view, the one is as consistent and probable as the other; or, if there be any superiority, it certainly is not on the side of materialism. If it be said that altho we may by pure reason reach a consistent and thoroughgoing idealism, all activity is conditioned on its practical denial, I answer that the same is true of a pure materialism; for the materialist, while he explicitly denies the existence of aught but matter, implicitly assumes every day such existence.

Thus, then, there are two extreme opposite philosophies which have divided the acutest thinkers from the earliest dawn of speculative activity; both equally logical, equally true, but equally one-sided. Each shows but one side of the shield, and errs by ignoring the existence of the other. Each is right in what it asserts, but wrong in what it denies. Each tries to solve the sphinx-enigma by denying that there is any enigma at all. Each would loose the Gordian knot by cutting it asunder.

Thus we find a fundamental antithesis in all human philosophy—an antithesis which, in one form or another, meets us on every side, and which therefore must have its roots in our twofold nature. In the language of physics, it is matter and energy; in the language of metaphysics, matter and spirit; in the language of philosophy, phenomena and cause; in the language of theology, nature and God. Now, materialism empties existence of one of these; idealism of the other. But common-sense and rational philosophy must and will have both, even if they cannot yet wholly reconcile them and comprehend They must have both, because both their mutual relations. are equally necessary conditions of human activity. These are the opposite poles of existence: we cannot even conceive of existence except under these two conditions. They are the opposite poles of thought, and it is impossible to construct a rational philosophy except under these two conditions. As electricity consists of two opposite and mutually destructive yet mutually dependent principles—positive and negative, which operate only in the presence of each other, and vet only while distinct from each other; as magnetism, too, consists of two opposite and mutually destructive yet mutually dependent principles which are operative only while both are present and yet distinct, so also human thought is operative in the construction of philosophy and science only as it separates and distinctly recognizes these two opposite principles.1 Practically, they are both always recognized. We may explicitly deny the one or the other, but implicitly we all of us and always assume both.

This fundamental antithesis, as already said, meets us on every side, not only in general philosophy as a whole, but also in

^{1 &}quot;Man's Place in Nature," PRINCETON REVIEW, Nov. 1878.

nearly every complex philosophic question. In general philosophy it is fundamental, and therefore irreconcilable; but in subordinate questions we can often see the solution and effect the reconciliation. In its deepest roots the antithesis may be irreconcilable, but not its upper ramifications. This fact is a pledge that the irreconcilableness, even in these deepest roots, is only the result of the limitation of our faculties. Thus it happens that in all important philosophic questions there are two opposite, mutually destructive, one-sided views; and a third, which combines and reconciles them—which explains their differences by transcending them. The first two are opposite surface views; the third stereoscopically combines them into solid reality. This is the true test of a rational philosophy.

I know of no better illustration of this general principle than is afforded by the question of the origin of organic forms. There are three, and only three, possible theories of the origin of species as there are of the origin of the individual. to the individual, the piously-trained child probably imagines that he was made directly, much as the sculptor makes his clay model. The untrained child probably thinks he was not made at all: he simply grew. While most mature persons hold what they believe to be a more rational theory—viz., that we, each one of us individually, were made by a slow process of evolution. So also in the matter of origin of species there are corresponding three, and only three, possible theories. I. Some (Christians generally) believe that the first individuals of a species were made much as the piously-trained child imagines all individuals are made i.e., directly, miraculously, or without natural process. 2. Others (materialists) imagine that species were not made at all: they grew; they were evolved. 3. Still others (theistic evolutionists) believe that species, like individuals, were made by a process of evolution. The first asserts the making, but denies any natural process; the second asserts the natural process, but denies any making; the third asserts making by a natural process. not evident, by the test given above, this last is the only truly rational and philosophical view? It transcends and explains the differences of the other two; it combines and reconciles them by showing that each is true in what it asserts, and wrong in what it denies.

We have said that the age is materialistic; that this is especially true of modern science; that among sciences it is true in a peculiar degree of biology; and finally, that in biology this tendency reaches its acme in the doctrine of evolution of the organic kingdom. This doctrine, therefore, may be regarded as the stronghold of modern materialism. It is here, therefore, that I wish to attack it. I wish to show that evolution not only does not imply materialism, but it does not add a feather's weight to the argument in its favor; that a theistic evolution is not only the highest and truest, but is also the most religious, philosophy.

My own views in regard to evolution are, I suppose, sufficiently known. I frankly avow my belief in evolution as a scientific theory. I have come to this conclusion after much thought and at first with much reluctance. As a pupil of Prof. Agassiz, I had deeply sympathized with his views of development. It seemed, and still seems, to me a very noble conception; but I now regard evolution by derivation as a far nobler conception. True, I cannot agree with those who insist that evolution always marches cum æquo pede. On the contrary, I believe that in all evolution, whether of the individual or of society, or of the organic kingdom, there are periods of slower and periods of more rapid progress: periods of comparative quiet, during which the forces of change are gathering strength; and periods of revolution, during which they show themselves in conspicuous phenomena. It is true, I do not agree with those who seem to think that we already know all, or at least the most important, factors of evolution. On the contrary, I am quite sure that the most fundamental factors are still unknown; that there are more and greater factors than "are yet dreamed of in our philosophy." But evolution of some kind and according to some law which we yet imperfectly understand—evolution affecting alike every realm of nature; a universal law of evolution—is, I believe, a fact which is rapidly approaching universal recognition. But let it be ever borne in mind and strongly insisted on, that evolution is one thing and materialism another and quite a different thing. The one is a sure or almost sure fact of science, the other a doubtful and more than doubtful inference of philosophy. no one then imagine, while under the guidance of certain materialistic scientists, he is carried step by step in the paths of evolution, from the inorganic to the organic, from the organic to the animate, and from the animate to the rational and moral, until finally he lands, as he supposes, logically and inevitably into absolute materialism—let no such one, I say, imagine that he has been walking all the way in the domain of science. On the contrary, he has stepped across the boundary of science into the domain of philosophy. But under the skilful guidance of these leaders the step seems so easy, so natural, so necessary, that most persons do not perceive any such boundary at all. They do not distinguish between the inductions of science and the inferences of philosophy, and all is accredited to science and seems to carry with it the certainty which is supposed to belong to scientific results.

Now I wish to insist that no more credit is due to these philosophical speculations, from the fact that they come from the lips of scientists. As scientists rightly smile at the dogmatism of philosophers on the purely scientific question of evolution, so philosophers will smile at the dogmatism of scientists on the purely philosophical question of materialism. Meanwhile, however, such has been the magnificent results of modern science, that the reading but unthinking public pay more heed to the scientists than to the philosophers, and materialism will still for a time continue to reign. But nothing can be more certain than that this is a mere temporary phase of thought; that evolution does not carry with it the implication of materialism. Yet the whole contest seems to be carried on by both parties on this ground. For one who looks at the subject from a more rational point of view, it is impossible to contemplate this condition of things without impatience. For such an one it is hard to say which most to wonder at and regret—the sublime assurance of the materialists in assuming the identity of evolution and materialism as a self-evident proposition, and thus claiming for the latter all the prestige of scientific truth, or the incredible folly of the friends of religion in accepting the identification. The fact is, there is not a single philosophical question connected with our highest and dearest religious and spiritual interests that is fundamentally affected, or even put in any new light, by the theory of evolution. Let us then take successively such important questions and prove this assertion.

1. The Idea of a First Cause.—The idea of Causation and of Force is not derived, as many seem to suppose, from without by observation, but wholly from within through consciousness. We cannot conceive of effects without causative force, because we are intensely conscious of being ourselves, through our wills, an active cause of external phenomena. If we were merely passive observers, but not causers of changes in the external world, these phenomena might seem to us merely to shift and change and succeed each other; we might note the order and determine the laws of sequence, but would never imagine any causal nexus between them. In the minds of such passive observers but not doers might possibly be realized the only thoroughly consistent materialistic philosophy—i.e., a philosophy in which, like Comte's, Cause and Force have no place. But the consciousness of essential energy, the certainty of a causative force, within; the certainty that we through our wills and by the conscious exertion of force, do determine effects in the external world—compels us to attribute all effects to causative force having its origin in will; and therefore, if the effects are not caused by our own wills, we naturally attribute them to other forces (wills) external to ourselves. We thus project our internal states into external nature.

But see the steps of the process. At first—i.e., in uncultured savage races, and also in early childhood—this external force takes the form of a personal will like our own, residing in each object, and determining its phenomena (fetichism). Afterwards we gradually learn to recognize the wide difference between the internal conscious force and the external forces. Then we naturally conceive phenomena as caused by resident forces under the general control of several personal wills (polytheism), or finally of one personal will—a single First Cause (monotheism).

Thus again we see that a human philosophy of nature is of necessity a product of two factors—the one derived from without, the other contributed from within; the one objective, the other subjective. A pure idealism empties existence of the one factor, a pure materialism of the other; but a rational philosophy requires both. Again: the uncultured savage man projects his own conscious personal will into every object of nature; the modern materialist, on the contrary, injects material forces into

the realm of personal consciousness; but a rational philosophy, again, requires the complete distinctness of these two.

Thus it is evident, first, that the idea of a causative nexus between successive phenomena is a primary perception, and therefore ineradicable and certain. Also, analysis shows that all causative force originates in will. And lastly, culture and reason inevitably carry us upward to the idea of one personal will the First Cause of all things. Science may sometimes obscure, but cannot destroy, this idea. Evolution, which was supposed by many to have destroyed it forever, has only temporarily obscured it, in the minds of the unreflecting, by the supposed identity of evolution with materialism; but from this temporary eclipse it will emerge with even greater splendor. For, observe: all the effects known to us in nature are finite; therefore, a cause, a personal will, which only determines these effects separately, by successive acts, must also be finite like ourselves. But a will which by one eternal act determines the evolution and sustentation of an infinite cosmos must itself be infinite. Thus only in the doctrine of universal evolution do we rise to a just conception of the First Cause.

2. The argument from Design.—But if the idea of cause carries us back inevitably to a personal will, the idea of design carries us back inevitably to a personal intelligence. It is this idea which has been most persistenly attacked. The materialist insists that the idea of personality of Deity, and especially the argument from design, has been shaken more and more in proportion as the phenomena of the universe are reduced to law; that its last stronghold has been the origin of species by direct miraculous creation, and that this last stronghold has been stormed by evolution. It has become the fashion, therefore, for materialistic scientists to ridicule the idea of design as a "carpenter's theory of the universe" no longer tenable in the light of modern science—as an expiring and almost vanished superstition. Now nothing can be more unphilosophical than such a notion. The argument from design is untouched, and must ever remain untouched, by the theory of evolution. The design remains ever the same, but our conceptions of the Designer is infinitely exalted—the basis of natural religion remains, but the character of our natural religion is infinitely ennobled.

In any case of supposed structural contrivance, whether human or natural, the evidence of design is not in the materials. but in the use of them; not in the parts, but in the adjustment of parts for a purpose. Design, adjustment, purpose, are not material things, but relations perceivable only by intelligence. and therefore conceivable only as the result of intelligence. It is simply impossible to talk about such supposed contrivances without using words which imply design, or even to think of them without implicitly assuming intelligence. It can make no difference how the materials originated, or whether they ever originated at all; it can make no difference whether the contrivance was brought about at once or by a slow process of evolution. The remoteness of the end cannot affect the design, but only our idea of the Designer, exalting it more and more in proportion as the process is more indirect, and the final result more remote.

This last statement I wish now to enforce. Without attempting here to prove the validity of the argument from design (tho I believe that its validity can indeed be shown), I wish to show that, admitting its validity in any case or on any view of creation, the theory of evolution without in any way affecting the argument, exalts infinitely our conceptions of the Designer.

The change which ought to and will eventually take place here under the guidance of evolution is exactly analogous to that which has taken place in natural theology in every direction under the influence of culture, especially of scientific culture. For example: the uncultured savage sees a *separate* god in every object. Gradually, as culture progresses, his gods become fewer and nobler, until in the most advanced culture man recognizes the One infinite cause and director of all. God is still in every phenomenon, but now no longer as separate gods, but only separate manifestations of one. Thus science indeed takes away our gods, but only to compel us to seek nobler and nobler ones, until we reach the only true God.

Again: This one God, even when the conception is reached, is too apt to be regarded as altogether such an one as ourselves, only possessing far greater power; but culture exalts our conception of Him to a higher and higher plane, until we recognize that neither in Nature nor in Providence are His ways like our

ways. The infinite perfection of His nature is seen in the invariableness of His processes, and the inviolableness of His laws. Thus culture simplifies while it purifies and ennobles, but cannot destroy, our conceptions of Deity.

Or again: I suppose it will be admitted that the existence of religion is conditioned on our sense of the Infinite, the incomprehensible, the mysterious. Now it seems to be generally supposed that the inevitable effect of science is more and more to remove mystery, and many boldly avow that the final issue must be the complete destruction of all mystery, and therefore of all religion. But not so: there is only a constant change an evolution-in the form of mystery. To the uncultured savage there is in every object a separate mystery. The function of science is indeed, by explanation, to destroy these separate mysteries. But what is explanation but reducing them to fewer and grander mysteries? and these again by explanation to still fewer and grander, until in the ideally perfect science all separate and partial mysteries are swallowed up and absorbed by the one all-embracing infinite mystery—the mystery of existence, of order, of law; and this again is explained only by the mystery of the one infinite intelligent cause. There is still mysterv in each object, but no longer a separate mystery-only a separate manifestation of one. To illustrate: the known in the midst of the unknown may be likened to a small circle of light in the midst of infinite surrounding darkness. The mission of science is, by eternal warfare with ignorance, to enlarge the area of that circle. But in proportion as the circle of light increases, so also does the circumference of darkness. portion as the comprehensible increases, so also do the points of contact between the comprehensible and the incomprehensible, which is the region of mystery. In proportion, therefore, as our knowledge increases, in the same proportion are we impressed with a more overwhelming sense of the infinity of mystery.

Or again, and finally: A similar change takes place in our *idea of creation*. At first every object is a *separate* creation, a manufacture. With advancing knowledge, especially with advancing science, these separate creative acts become fewer and nobler, until in evolution all are embraced and swallowed up in one

eternal act of creation—a never-ceasing procession of divine energy.

So also precisely is it with the effect of science, and especially of evolution, on the *idea of design*. To the uncultured there is a distinct and *separate* design in every separate work of nature, as there is in every separate work of man, especially of the uncultured man working directly with his hands only. As science progresses, all these separate, petty, anthropomorphic designs are merged into fewer and grander designs, until finally in evolution we reach the one infinite all-embracing design, stretching across infinite space and infinite time, which includes and predetermines and absorbs every possible separate design. There is still design in every object, but no longer a separate design, only a separate manifestation of one infinite design.

It is impossible to dwell on this grand idea without a sense of sacred joy, an almost painful exaltation of mind; and vet many Christians seem to fear evolution as diminishing the glory, if not destroying the idea, of God. On the contrary, it is impossible to reach through nature a worthy conception of Him except through the doctrine of evolution. Will any one deny that the theory of universal gravitation has tended to ennoble and purify our conception of Deity? Would any Christian willingly give up this sublime conception? In another generation I am convinced Christians will cherish in an equal degree the theory of universal evolution. For precisely as the law of gravitation is related to infinite space, so is the law of evolution related to infinite time; precisely as the one is related to sustentation, so is the other related to *creation*. As the law of gravitation proves that the same law which controls the falling of a stone guides also the heavenly bodies in their fiery course, so the law of evolution shows that the same law which now governs the development of the embryo from germ-cell to maturity, has also guided the development of the earth and its inhabitants through infinite time, from primal chaos to its present condition. law is seen, nor change of purpose, but the ceaseless activity of Deity is exercised only in the eternal unfolding of the original conception. Thus as the law of gravitation binds together the whole universe of space into a beautiful cosmos, even so the law of evolution binds together the whole universe of time into a

no less beautiful and orderly but less understood time cosmos. If the former law, as does no other, illustrates that glorious attribute of Deity—His omnipresence in space, the latter, as no other, illustrates that, if possible, still more glorious attribute—His unchangeable omnipresence in time.

It is true that in all evolution some steps are still inscrutable to us. This is especially true of the evolution of the organic kingdom. Such, for example, are the first appearance of life, and the first appearance of reason and moral sense in the history of the earth. These steps are to us still each a separate mystery, and therefore seem to require a more direct interference of Divine energy. We may hereafter understand these better, and the separate mystery will disappear; or they may remain forever inscrutable to us. In my article on "Man's Place in Nature" I have tried to make the latter more intelligible. At least one must forever remain inscrutable, viz., the origin of matter and the impregnation of primal chaos with the Divine energy.

But it will doubtless be objected that evolutionists ascribe the progressive changes which characterize all evolution to the action of forces residing in the thing evolving, and that this is necessary to the idea of evolution as understood by modern scientists, and as distinguished from what might be called Agassizian evolution, i.e., the development of a work of art under the hand of the Divine artist by successive interferences according to a preordained plan. I admit that evolution must be ascribed to what we usually call resident forces; but resident only in the sense that all the forces of nature are resident in the same sense that the physical forces which sustain the solar system, or the vital forces which determine the growth of the animal body, are resident. This of course does not touch that deeper question—that deepest of all philosophical questions -viz., the relation of natural forces to the Divine energy. I myself cannot think that natural forces are really resident in the same absolute sense in which we commonly regard them, i.e., that they are independent, efficient, self-acting agents. On the contrary, in an important sense they must be regarded by the philosophical thinker as the ever-present, all-pervading, everacting energy of Deity. I do not dwell farther on this important point because I have treated of it in a previous article.¹ But to science as science the idea of resident forces is a necessary working hypothesis. It is the work-clothes of science, which must be put off only when we return home to our innermost and highest thoughts, whether religious or philosophical. We only insist that *creation*, or the origin of things, should be put on the same ground as *sustentation*, and that the *evolution of the cosmos*, or of the *organic kingdom*, should be put on the same footing as the *evolution of the embryo*. If science, in speaking of the forces determining the origin of species or the origin of worlds as resident, thereby puts God out of the category of maker, then also science, in speaking of the forces which sustain the solar system or determine the evolution of the embryo as resident, thereby puts God out of the category of sustainer of the cosmos, or of maker of each one of us individually.

To one who looks upon the subject in this way—who regards science as the study of the modes of Divine work—there seems to be a strange perversity in the human mind in regard to the works of nature. No sooner do we find out how a thing is made, than we say it was not made at all, or it made itself. Thus, for example, so long as the manner of origin of worlds was wholly incomprehensible, we all supposed, from the order and beauty of their movements, that they must have had an intelligent maker. But no sooner did some one suggest how they were probably made, the process by which they were gradually formed, and the forces by which they are moved, but immediately we cry out, "See! they require no maker at all!" Or again: so long as the origin of species was an insoluble mystery, we agreed, from the wonderful structure of organisms and the beautiful arrangement of parts to fulfil certain ends, that there must have been a wise and skilful designer. But no sooner does some one suggest how the thing was done, but we conclude there is neither design nor designer. Now, do we behave so in regard to any human work? Yes, but only in the case of the thaumaturgist, the magician. Here, indeed, our wonder, our admiration, our faith, ceases when we understand the process. But in any honest work, on the contrary, our admiration only grows in proportion

^{1 &}quot;Man's Place in Nature," PRINCETON REVIEW, Nov. 1878,

as we understand better the process by which the end is reached. Shall we then regard the Divine worker as the prince of thaumaturgists, seeking ever to hide His processes from us; and therefore when we find them out must our admiration cease and our faith be lost? Or should we not rather regard Him as a loving Father, anxious to teach us by revealing His processes to us in proportion to our efforts to learn, and therefore admire and love the more in proportion as we understand better. He who sees only the results of the operation of Bell's telephone, but understands not the process, can regard it only with stupid wonder; but to him who understands fully the principles of its working, it is a source of high intellectual delight. So also so long as the process of the Divine work is inscrutable to us, we can only regard it with awe and reverence; but when we understand somewhat the process or law by which the same is accomplished, the only rational change which should take place in our minds is not a change of attitude, not a loss of faith, but an increase of our reverence, and an adding thereto of intelligent admiration.

3. Question of Immortality.—By many philosophers the existence of an immortal spirit in man is supposed, and probably truly supposed, to be a primary perception, and therefore incapable of proof by reasoning, because already more certain than any result reached by reasoning. As the existence of the external world is given directly in sense-perception, so the essential activity of spirit is given directly in consciousness as its correlative. As mind through sense perceives, not impressions only, but external things, so also mind in consciousness perceives self as an internal thing, the correlative of the external. Self-consciousness, therefore, is the direct cognition of spirit as essence. This is the ground of the Intuitionalists.

By others, the same conclusion is indirectly but no less certainly reached, as follows: We are intensely conscious of activity, and therefore compelled to believe implicitly in whatever constitutes the basis and underlying necessary condition of our activity. Thus, as we believe in the existence of the external world, tho incapable of proof by reason, because such belief is a necessary condition of our physical activity in a material world, so are we compelled to believe in the existence of a spiritual world tho incapable of proof by reasoning, because such belief

is a necessary condition of our spiritual and moral activity, and especially of the attainment of our moral or spiritual ideal—the true end of our existence. For if without God there is no adequate *First* Cause of nature, without immortality there is no adequate end or Final Cause of man's existence. Belief in God and immortality is necessary for our moral activity, therefore we must postulate them as true: belief here rests not on logical, but on moral grounds, is not a logical, but a moral necessity. True, we cannot logically prove spirit any more than we can matter, but as the postulation of matter explains all the phenomena of nature, so the postulation of spirit explains all the phenomena of human life.

Or the same idea may be otherwise put thus: There is an eternally necessary and indissoluble connection between the true and the good. We all, and none more than the materialist, recognize the necessity of the connection in one direction. admit that it is inconceivable that truth shall not become finally All admit that there is nothing true which shall not become also at last good. Its good may not show itself at once perhaps not in the same century, nor even in the same millennium; but at some time it will appear. Its life may remain dormant for ages, but if it have the germinal principle of truth it must finally develop and bear fruit in material or spiritual blessings. We are all willing to admit this; but the converse is no less certainly true. Whatever doctrine is certainly and in the long-run good, whatever belief is fraught with blessings to man, must be in accordance with the laws of nature and of man, which are the laws of God, and therefore must be true. Every good—if it be a real good—is such by virtue of a contained truth. The form of the truth may be misapprehended, but the germ of a truth must be there, tho perhaps mingled with much error of form. belief in God and immortality is the necessary condition of emergence of humanity out of animality (if we take that view), and of the whole subsequent progress of humanity from savageism to civilization. That which forms the underlying condition of human existence and human moral improvement, and therefore indirectly of all improvement, must be an objective reality. A tree which has borne all the most worthy fruit must have its roots in eternal truth.

Or to put it yet another way: In a recent article ' Prof. Huxlev states with characteristic clearness the alternative beliefs, materialistic and spiritualistic, in regard to the nature of sensation and all other mental phenomena; and with equally characteristic frankness and honesty admits that the one view is a priori as probable as the other, but thinks that both are equally incapable of proof. Neither, he thinks, therefore can be regarded as anything more than a convenient working hypothesis. Many will disagree with him in this; but let it be admitted for the sake of argument. Since then, he says, he must choose among these possible working hypotheses, he will choose the simplest, viz., the materialistic. In other words, he selects the materialistic view, tho he admits that it is no more probable than the other, because this is for him the better working hypothesis. In answer, I would say that it may indeed be the better working hypothesis for the physiologist and biologist, but the very worst possible working hypothesis not only for the Christian, but also for the moralist, the philanthropist, the statesman, and jurist. If, in the absence of proof, we must choose a good working hypothesis for activity on the highest plane of life, surely there cannot be the slighest hesitation as to which we ought to choose.2

The argument for immortality, then, briefly stands thus:
1. There is a direct perception of essential activity or of spirit revealed in consciousness as the correlative of the external world or matter revealed in sense. 2. A belief in immortality is a necessary condition of moral activity and growth, and therefore the belief must have a corresponding reality. These two seem conclusive enough so long as we confine our attention to

¹ Popular Science Monthly, May 1879,

² Some may object that I have all along directed my attack against materialism, whereas agnosticism is the more fashionable philosophy just now. To such I would reply, that the two are practically identical; for modern agnosticism chooses materialism as its working hypothesis. Kant was also an agnostic, but chose the spiritual theory of mental phenomena, because absolutely necessary as a working hypothesis on the higher planes of human activity. But the modern agnostic chooses the materialistic theory as the better working hypothesis on the lower plane of material science. Kant, the agnostic, therefore was a rational believer in God, immortality, and moral freedom, while the modern agnostic is a sceptic in regard to all of these.

man alone; but the objection to all this which comes from evolution is obvious. 1. The gradation between man and animals and between animals and plants seems to compel us to include these also, and thus spirit becomes synonymous with life; and, 2. The correlation of vital with chemical and physical forces seems to compel us to include all matter in the same category. Thus immortality becomes nothing more than conservation of energy, and we secure *immortality* only by losing conscious personality. It was to meet this objection that my article on "Man's Place in Nature" was written. show, that, supposing there be such an intimate relation between man's spirit and the anima of animals, the vital principle of plants and the chemical and physical forces of inorganic nature, yet in the evolution of man's spirit from these lower forms (as in all evolution) at certain stages of development or planes of elevation new capabilities and powers suddenly appear. Such a critical period, such a birth into a higher plane, occurred with the appearance of man; and the essential characteristic of this new birth was the capacity of independent life or *immortality*.

Thus it is evident that modern science does not and cannot touch the positive basis on which belief in the immortality of spirit rests (and no one sees this more clearly than Prof. Huxley); it only confuses us with the difficulty of clearly conceiving how it became so (for modern science insists upon the question of the how). This difficulty I hope I have in some degree removed in the article already referred to, for in it I try to show that not only is immortality not inconsistent with evolution, but is the crowning act, the only rational completion of evolution.

4. Question of the Miraculous.—Closely connected with the last is the question of the miraculous, including, of course, the question of revelation. The beliefs in God and immortality have been always and rightly regarded as the necessary condition of religion of any kind. But surely next to these comes the belief in a divine scheme of human moral improvement by a revelation of Himself. Now I again assert that the rationality or irrationality of such a belief cannot be affected by the doctrine of evolution, nor indeed by any scientific doctrine whatever.

We have already said that the antithesis "matter and spirit"

is to us in the present condition, or indeed in any possible condition of human knowledge fundamental. If so, then the same laws and processes cannot reign throughout both realms. Their processes must for us be different, and therefore, from the purely material point of view, those of spirit must seem supernatural. The activity of spirit in its highest moral relations must from the pure material point of view be forever incomprehensible. because irreducible to material laws. It matters not how the human spirit originated—whether suddenly or by evolution: its recognition of self and of God immediately and necessarily determines new and higher—i.e., moral—relations with other human spirits and with God. It is true that in the complex of phenomena, material and spiritual, which make up human life, science must ever strive to reduce as much as possible to material laws: for this is her domain, and she must extend it as far as possible. But there will always remain a large residuum of phenomena, and that the highest and most characteristic, which will never yield, because they lie beyond her domain. region of activity of pure spirit, and especially of the action of the Divine Spirit on man for his highest good, either directly or through nature—this is the only legitimate domain of the miraculous.

Or to put it differently: Surely no portion of man's nature is more fundamental and essential than his religious nature, and therefore none which more imperatively demands satisfaction of its cravings or food for its growth. As knowledge is necessary for the growth of the intellect, so certain beliefs are necessary for the growth of the moral and religious nature. As there must be objective reality in the things which constitute the materials of knowledge, so there must be also objective realities corresponding to fundamental and universal religious beliefs. possible to avoid this conclusion except by an agnosticism which destroys science as well as religion. Now, as the necessary basis of abstract or natural religion is a belief in God and immortality. so the necessary basis of a practical religion which shall affect men's lives is a belief in a divine plan for man's moral improvement and the dealing of the Divine Spirit with the human spirit either directly or through nature for that purpose. If God is indeed our spiritual Father; if we are indeed not only His creatures. but also His children; if we are indeed endowed with a moral nature which establishes with Him relations different from those of any other portion of His works; if we alone of all His works rise above nature and enter into higher—i.e., moral and personal—relations with Him: if all this be true, then it is natural, nay, it is necessary, that in accordance with these higher relations there should be a different and a more direct influence, a freer and more personal communion between Him and us. If man indeed transcends nature, then must his relations with God and the modes of intercommunication also transcend natural modes. If the miraculous in the pure course of nature is inconceivable, since it would limit the power and anthropomorphize the character of Deity, then natural modes of communication between God's Spirit and man's are also inconceivable, since such coercive modes would destroy the moral freedom of man.

This, then, is the proper domain of all processes which transcend the ordinary processes of nature—i.e., of the miraculous. The sooner, therefore, the friends of religion cease to look for, or desire or expect to find, evidences of the miraculous in the pure course of nature; the sooner they limit it to God's dealings with man as a free moral agent, either directly or through nature—the better. Even here they will doubtless be attacked, but not by true science, for it is beyond her domain. Even here they will be attacked by those philosophers who deny the moral freedom of man, but here in their own domain they are impregnable.

But instead of confining themselves to this, their legitimate domain, the friends of religion throughout the whole history of the church have been engaged in a vain attempt to defend the miraculous in the pure course of nature, and therefore religion has been put in the false and humiliating position of giving ground step by step before the steady advance of science, and the faith of many suffer irreparable injury. First, the battle-ground is the heliocentric theory of the solar system, then it is the universal law of gravitation, then it is the antiquity of the earth, then the antiquity of man. Thus intrenchment after intrenchment has been abandoned which ought never to have been held. The miraculous origin of all *inorganic forms*, such as continents and seas, mountains and valleys, have long been given up, and

only organic forms remained. This is at best a forlorn hope, a poor last ditch, differing in no important respect from those already abandoned, and therefore must be abandoned in its turn. The sooner it is done the better for the cause of true religion.

There was a time when theology claimed the whole domain of knowledge, as the priesthood did that of power. Step by step she has been compelled reluctantly to retire within the limits of her own domain. On the other hand, science, flushed with victory, has crossed the border, and would now claim all for herself. But she also must be driven back to her own place, and the domain of each be settled forever by philosophy.

Thus, then, there should be no longer any doubt that the truth or error, the acceptance or rejection, of evolution cannot affect any fundamental question of religious belief. Its acceptance, indeed, destroys our lower anthropomorphic notions of Deity and His modes of working, but this only compels us to form higher and juster conceptions. Thus its effect, like that of all science and all knowledge, is only to purify and ennoble our religious faith.

JOSEPH LE CONTE.

A MORAL ARGUMENT.

OUR age is to be congratulated upon the fact that all the philosophical schools worthy of mention, otherwise so divergent, unite in postulating some kind of an authoritative moral code. The value of such an agreement cannot be overestimated, for, without a fundamental moral premise, argument is futile and only recrimination possible. Such a premise can be established only arbitrarily, and it is well that it was not left for this generation, when the arbitrary is unfashionable and unpopular, to perform a task so disagreeable yet so necessary. Duty, however, is a word and a thing so universally recognized that it may without hesitation be accepted as the primary postulate of a practical science; for while it cannot be argued into existence, neither can it be argued out, since it is no less well established than the fundamental logical postulates. It is not the purpose of this essay to enter the discussion about the origin of this necessary feeling. All parties admit its necessity, and thereby affirm that it is the correlative of an objective fact: one because it supposes a pre-established harmony between the necessary exercises of the soul and the objective world; another because it believes in an intuitive apprehension of universal fact; and yet another because it assumes that all these practical necessities of psychical action are a transcript of the external produced

¹ Since this article was completed, has come into my hands the able post-humous treatise of Prof. Herbert, "Modern Realism Examined," which follows almost the same line of argument with much more elaboration and a wealth of learning that puts me out of conceit with my humble production, the only apology for whose publication now is that Prof. Herbert's discussion does not appear to have received that recognition of which I believe it worthy. Tho strongly tempted, I have refrained from making any changes after reading his work, since to have begun to do so must have reduced my essay to a mere review of his.

by a continuous adjustment to the environment. In any case, therefore, the practically absolute subjective necessity and its correlation with a relatively universal objective reality is undisputed.

This moral law may be classed in the category of necessary postulates of psychical action. The word "necessary" intends no metaphysical assumption. It may be the necessity of organized experience. It differs from the necessary mathematical and logical postulates in that it is a necessity of volition as well as of thought. A necessity of thought is purely formal, and depends upon circumstances for its matter in any particular case. A moral necessity combines a necessary law of thought with an equally necessary volition. Intelligence and volition thus produce purpose, which is the projection of itself by the will into an intelligible future. Mere volition is blind and bungling; mere intelligence is motionless. Together they become the highest psychical exercise—a purpose.1 In proportion as they are recognized as necessary they constitute a moral purpose. The psychological nature of the volition, qua volition, may not be peculiar. Nor need the intellectual content of the law differ in any respect either as to nature or origin from the other necessary dicta of thought. The conscious necessity of volition is the authority or enacting clause of the law. The intelligence expresses the content. They are so far distinct that loyalty to the authority of the law may coexist with ignorance of much of its content, and vice versa. The sanctions of the law, as of all law, lie in penalties actual or potential. They are the penalties of guilt for the volitional, and of ignorance or folly for the intellectual element. There appears no other than a shallow sentimental reason for doubting that ignorance and folly are as truly disastrous as is guilt. With ignorance we have nothing at present. We will discuss the nature of the volitional necessity or moral authority of the ethical code. The penalties which sanction

¹ A friend suggests that the words "volition" and "purpose" are here used somewhat out of their ordinary signification. It may be, but the context will explain them, and the excuse for making thus free with them is that, in the collapse of ambitious theories of the Will which had to maintain an army of words to support their pretensions, many valuable words have been thrown out of definite employment. For the present we may all take a part in refixing their usage.

this are objective and subjective. If they are but a registry of facts in the environment, their violation involves a maladjustment to the environment, and hence penalty. In proportion as a soul is so well organized as to be independent of the fear of the environment, it has made the laws of the environment its own and transferred the penalties from objective to subjective. It cannot violate law and escape penalties somewhere. With the perfect realization of personality comes the complete subjectifying of the law and a resentment at any appeal to external coercion. In argument among equals it is necessary to assume the complete personality of each, and to waive all reference to what external sanctions there may be of this volitional necessity, and to rest the case upon the authority of the personal organized or increated self-imposition of law. Only in this way is argument possible with the ultra-independent adult of to-day.

The psychological nature of this authoritative claim of conscience seems to be that the will is so endowed by creation or inheritance or experience with a consciousness that acting in a certain way challenges penalties, that altho it habitually does act in that way, it does so with a suicidal feeling which we call a sense of guilt. Let it be distinctly understood that the authority of conscience is independent of and superior to all theories of its origin. All arguments not wholly at loose ends proceed from recognized generals or particulars whose certainty and authority are superior to the conclusions sought. But conscience cannot allow anything a certainty superior to her claims. She is sovereign or she is dethroned and defied. To suppose that the rights of conscience can be brought to the test of reason is to assume that the moral postulates are inferior in authoritativeness to the logical. The origin of conscience is a proper But it is purely historical, genealogical; that is, scientific. The authority of conscience is de facto, like that of governments, of which it is either the copy or the original. It goodnaturedly allows investigation of its de jure position, but it stakes thereby nothing of its authority, and suspends no one of its threatened penalties. Its supremacy, like that of Cæsar, is a prize of conquest, and can afford to smile at legends of Iulus and Æneas and the gods. Were the question to be asked other than as an historical one, before what court could it be adjudged?

Assuredly conscience cannot sit in judgment upon a question of her own jurisdiction. Nor has reason any jurisdiction over a Reason has no penalty that reaches the will case of volition. and cannot bring a moral accusation. "Reason, meaning the judgment of truth or falsehood, can never of itself be any motive to the will" (Hume). Defiance of even the necessary laws of thought only proves the fool, and not the rogue. plainly no court in the realm of personality with jurisdiction to decide in a practical case upon the de jure authority of conscience. Conscience as sovereign recognizes no courts not licensed by herself, and cannot commit suicide by granting any permission to decide on her right. Whoever, therefore, practically defers submission to conscience until her genealogy is examined has placed himself outside the limits of her forbearance, and is a sinner in every sense in which that word means anything. If a coercive foreign authority were postulated, so that the soul might be illustrated by a province instead of a republic, as may once have been the case, then indeed an appeal might be carried away from conscience to the superior external The appeal would be to a Cæsar more supreme than conscience. But the personality of those who are here addressed has become (prematurely, it may be, but undeniably) so definite that it claims the right to exercise its private judgment upon the credentials of any asserted external authority. And of this court of private judgment conscience is chief. Whatever homage, therefore, is paid to an external power is paid in the exercise of unfettered freedom recognizing and bowing to superiority no longer as a vassal, but as a worshipper. We conclude, therefore, that the moral law as to its authority is a de facto necessity of volition, the firmness of whose voice and the direness of whose penalties are irrespective of genealogical or historical or scientific investigations concerning conscience.

As before remarked, the mere volition without intelligent direction is blind. We will therefore discuss the content of the moral law. This consists of necessities of thought indistinguishable in psychological character from the primary data of mathematics. It is immaterial whether they came by creative fiat of an extra-phenomenal cause or by a continuity of phenomenal growth. They are here, and a *bona fide* denial is as impossible

in their case as in that of the mathematical data. Whether they may ever be transcended is of no present practical importance. Whatever we have of life or hope we are compelled to wager on the objective verity of the mathematical and moral laws in all the spheres of experience at present attainable. The integrity of the moral code is also independent of our ability to reduce its apparently disjointed statutes under one formula. Scientific instinct as well as practical convenience inspires such an attempt, but pending its success the statutes are no less binding. We need not discuss critically the tentative reductions of the moral code to a single formula. Enough that all agree in employing the word persons in the plural number. so and so toward all persons" is sufficiently definite for our purpose, and indefinite enough for general acceptance. includes self, of course, and is usually interpreted as altruistic. If it is, we are now for the first time outside of our radically republican selves. We refused to look outside for a law, refused to allow any external force to impose one upon us, refused to recognize any not emanating from ourselves and administered by the courts of our own personality. But while thus self-sufficient and independent as to the authority of the law, we cannot be so as to its object. This same self-imposed moral law commands me to go out of myself and seek other persons upon whom to exercise it. I am urged by moral imperatives to the solution of the pressing question how to discover persons other than The law, so long as it was altogether subjective and a matter of volitional and mental necessity, was aristocratically oblivious of scientific investigations and sense experiences, tho these may have been its plebeian ancestors; yet now it not only needs and seeks but demands the assistance of science in the exploration of the universe in search of persons to be the objects of its exercise. Inductive science has now for the first time some place in the moral system—to discover its objects. Let me take the lantern of science and look for a man.

Defining by my knowledge of myself, a person is a complex of psychical phenomena possessing at least an organic unity and classifiable into volition and intelligence and their offspring—purpose. Parallel with or asymptotically approaching (as to the practical possibility of discovering the point of tangency) this

psychical arc is a set of corresponding physical phenomena exhibiting a similar organic unity with changes intelligible and involving a future, and thus constituting adaptation; these being found invariably associated with the respectively corresponding psychical phenomena. Besides this physical organism which I call my own body, I see a great many other similar nuclei of changes intelligible and adapted to ends. They correspond in structure, having a co-ordinated set of members with a mechanism increasing in delicacy and intricacy and obscurity until it disappears in the dark chamber of the brain. This mechanism is more than a statue, for it transforms and transmits force. It differs from a mannikin in that its mechanism is no less complex than my own, and for that reason beyond my power of thorough explanation. Like my own body, its actions can be classified as intelligently causal. I therefore infer that, like my own body, it is associated with a parallel psychical experience. I infer that corresponding to that body is a consciousness like my own. Can I justify any such inference? Can this eject-Prof. Clifford was well aware that it could not become an object—be retained, or must it be banished as the last superstition of the "theological age"? It is our painful duty to announce that the inexorable decree of modern science, altho not intended when formulated to cover this case, does so, and the eject must go to the lion's den. The eject worships toward Jerusalem. It is a superstition, and I must destroy it in the name of science, tho it leave me as lonely as Cain. Science accepts but one kind of evidence of external realities—that of the senses. Every process of reasoning which would prove an objective reality must have sense perceptions in the premises, and must reach conclusions verifiable by the senses. "If there be a God," or man, "in the universe, I ought to be able to weigh him." If I cannot test a thing by the senses or prove it by induction from facts of sense, I must not believe it. To believe it would be a sin. So says Prof. Clifford, and he, being canonized, is authority. But another

¹ No assumption is made of metaphysical dualism. Materialism and idealism must acknowledge the persistent polarity of the two classes of phenomena, and that is all I care for.

² If I seem to speak irreverently of the dead, I beg pardon of all whose philosophy allows a place for reverence, but not of those of his unquestioning followers whose minds have been beclouded, by his early and romantic death, to the necessity of criticising him.

consciousness than my own cannot be an object of sense, nor, therefore, of induction. I legitimately prove by induction that other bodies are like my own; that they are centres for the transformation of physical force; that their actions are intelligible and adapted to ends. But the reasoning by which I pass from this to the belief that associated with these are conscious centres of effort and intelligence and purpose is not an induction, but an analogy. Analogical reasoning is notoriously not conclusive, but only illustrative. In this case the major premise is assumed; namely, that all bodies exhibiting the same physical characteristics as my own are accompanied by similar psychical experiences. Then the minor being proven inductively, it is easy to draw the conclusion. Sound logic must protest against the major as a false universal. Without its assumption we know only one case in the unnumbered billions where such consciousness exists. We cannot say that it is a necessary belief, for science is busily engaged in weeding out those supposed necessary beliefs which cannot be brought to the test of a fair induction from sense experiences. Some have professed to teach that the belief in a God was necessary; on the assumption, we presume, of this as a necessary premise. That fact is enough to damn the premise. We propose to show farther on that its admission will end inevitably in a miserable fiasco, the "reductio ad absurdum"—a God. But seriously science cannot tolerate any such smuggling in of mere analogy in one premise under cover of the induction in the other. Prof. Clifford confesses that, but says that the world long ago cut the knot. Such words from one of his pretensions are scientifically villainous. The world also cut the knot in precisely the same place to establish its belief in a God or gods, and against that Prof. Clifford's virtuous indignation knows no bounds. Science knows no bridge between the analogical and the logical but sense experience. It cannot possibly be proven that consciousness even in myself is more than a by-product, or at best an ornament or a disease, like a pearl, or a stumble, like the white cap of a wave. That it is an invariable accompaniment of the physical phenomena like my body is incapable of inductive proof or of experimental verification, and therefore possesses none of the elements of credibility. It makes a beautiful fancy for the picture-gallery of the mind, but it would be superstitious to allow it to control my actions

in the least. Our conclusion on the content of the moral law, therefore, is that the science of the five senses leaves no person but one—that is, self—as the object of the law.

"Lo, in the seas of life enisled,
With echoing straits between us thrown,
Dotting the shoreless watery wild,
We mortal myriads live alone."

Now I am indeed free. Not only do I recognize no ab extra authority coercing me to obey the moral law, but I find no object of that law but myself; for the universe, so far as science shows me, consists of only myself and things. I may employ things as I will for my ends. Is the conclusion catastrophic? Not at all. It simply means a selfish system of morals. The law which commands me to "regard all persons" has been construed by science to contain but one person. Even a white man has no rights which I am bound other than for prudence' sake to respect. So we are back to the delectable "state of nature" before the "theological era" taught us to hypostatize natural phenomena as persons. I confess the conclusion is distasteful. Artemus Ward was willing to sacrifice his wife's relations to attest his lovalty to his country. My loyalty to science requires the sacrifice of my own and of every friend. But these are no times for idle sentiment. Science is an exacting mistress, and will smile on no man who loves father or mother more than her.

Yet things are not so bad as they seem, nor am I so free as I imagined. Happily, for it threatened to be a lonesome freedom. I can still work, tho I cannot love. With the disenchantment which banished persons, things rose into new prominence. Discretion takes the place of duty toward the external world. I may still escape *ennui* in manipulating circumstances, tho I cannot hope for the bliss of associating with fellows. No formal change takes place in my relations to the things I once called persons. Personality remains as a formula, mechanical, chemical, vital, as you will, like that for the aquosity of water or the horosity of the clock. I employ it to work out problems in the marshalling of circumstances to serve my advantage. When it suits my whim, I have no difficulty in personifying people as the engineer does his engine or the mathematician his curve. Nor

would I have any scruples about de-personifying them did it suit my purpose; which is convenient. I am convinced, however, by a necessary law of thought which will respond to the test of induction, that it is better policy never to employ a thing which will answer to the formula of personality under any other formula. I take this to be the meaning of the moral law which plainly contemplated something plural when it placed the word "persons" in its statute. The moral law is the registration of the collective and progressive selfish wisdom of my ancestors. I had by all means better follow it. Men are indeed only clotheshorses, but it will not pay to treat them as such. physical instruments of much delicacy and terrible potency. They may be Æolian harps responding in melodies and harmonies to every breath of mine, or they may be infernal My scientific liberation from the thraldom of a theological belief in a personality behind every clothes-horse I meet does not, therefore, release me from the moral necessity of acting as if there were. It only changes the wording of the supreme practical maxim. Instead of reading as before, "Regard every person, and thus by implication yourself, and yourself especially in proportion to your greater nearness to yourself," it now reads, "Regard yourself alone, but as a means to this treat every organism like yourself as tho it were a person and included in the law as equal to yourself." Thus as a matter of cold scientific selfishness I am highly moral and amiable. I fancy myself loving my mother, for greater ease poetically personifying the unconscious automaton. In my high state of development poetry furnishes all the personification I need, and belief is a cast-off relic of a propædeutic age. I find my most exquisite enjoyment in friendships, pure and tender and deep. A friend is a musical instrument of unlimited capabilities, which if skilfully managed and practised upon will produce tones to fit all the moods of life, and promises to soothe the pathway of declining years. A Christian wife who had absorbed all the sweetness of that peculiar species, but had cast away its burr of superstitious doctrine, would probably be the greatest luxury. In the intense fervor of mathematical or poetical personification of friends I often catch myself on the point of dropping back into the vulgar belief in their real personality. Especially is this

true about my mother, and (sub rosa) I have been constrained to compromise by allowing myself an unmolested belief in her as a conscious being who has an affection for me, as Clifford allowed himself to believe in the personality of his cat. This is a weakness, I confess, but I fear the attempt to carry out too consistently my scientific convictions, and bear about with me the consciousness of such an unbelief, would be a ruinous strain on the yet imperfectly developed machinery of the soul. My children, being naturally more highly evolved than myself, will probably be able to suppress the remnants of superstition and disbelieve in me with considerable ease. Thus I look forward to the millennium.

There is a wide-reaching and tremendously important corollary to the supreme stress which the practical maxim of conscience lays upon my relations to personificable objects. distastefulness might suggest the desirability of disregarding or disproving it, were that possible. Its necessity is, however, of such a degree as to suggest that it is either a part of the original created furniture of the soul, or the concentrated product of almost universal experience, while it is not in any respect unverifiable by scientific processes. The corollary is that the slightest suggestion of the presence of formulative personality must be treated as presumptive evidence of such presence until the contrary be proven or satisfactory reasons assigned for disregarding the suggestion. The burden of proof is upon him who does not personify everything exhibiting a likeness to personality. The rustic is right in personifying a tree until he is convinced that it lacks the marks of personality. He may be ages learning it, for he is slow and the proof is not easy. By the same corollary, denunciatory declamations of secularists to the contrary notwithstanding, the "uninstructed" are right in regarding the universe as an expression of personality until their darkness be dispersed. Thus the practical agnostic as well as the atheist must shoulder the burden of proof. To illustrate: a peculiar phenomenal organism, manifested chiefly in pirated books and, negatively, also in many sermons, is an object of my experience. There is fairly convincing inductive proof of a physical organism in England, which, and not these printed phenomena, would be called a body by the pragmatical. I have a

scientific belief in the existence of such a body, tho I never saw and probably never will see it. The body I know is a highly evolved organism of polysyllables. But I personify it and call it Herbert Spencer. Conscience requires me to venerate it as my superior. Were it to criticise me I would feel honored and rebuked, as tho it were a real, conscious person. Scientifically I am compelled to be agnostic as to Mr. Spencer's personality, but practically I must act as if I were as certain of it as of my own. Yet I cannot weigh Mr. Spencer—could not if I were in England and had every facility which he and science could afford. To weigh what the vulgar call his body would be as futile as to weigh an American edition of his works.

Likewise there is a suspicion that the universe may answer to the formula of personality—a suspicion only, it may be, but until it be explained away I am morally bound to regard it as a person. To put the universe on a level with Mr. Spencer and personify it as definitely as I do him is almost as bad as theism. Yet unless there has been a flaw in the preceding argument, the only alternative is to assume the burden of proof and show that the universe does not possess the characteristic marks of formal personality; and to treat it as a person meanwhile.

There can be no denial that the universe appears as an organic unity. After a long struggle this has become an axiom of science. Pending its establishment polytheism was as obligatory as theism now seems likely to become. It is not denied that this unity is one of force. Science has firmly fixed that. Nor does the possibility of science allow the denial that it is an intelligible unity, and Mr. Spencer's latest inductions indicate a unity of final adaptation or moral design. There remains one other mark of personality—that of extreme complexity. In my own experience, as I approach the centre of co-ordination daylight diminishes until impenetrable mystery overhangs the region of. the transformation of force and the marshalling of causes to produce determinate ends. So in nature. Tracing back any line of her progress one becomes involved in problems too intricate for solution. The composition of a molecule is a secret as dark as the manipulations of a brain. "It cannot be too distinctly borne in mind that between the microscopic limit and the molecular limit there is room for infinite permutations and

combinations. . . . The first marshalling of the atoms upon which all subsequent action depends baffles a keener power than that of the microscope" (Tyndall). Not only microscopically, but telescopically and spectroscopically and chronologically, and in every other respect, the universe is as baffling as the phenomena of brain. But it may be said that this is all a matter of distance and size and time. Certainly; and pray what is size and distance and time? The essential of personality in this respect is that, while it may be a machine, it is too complex to be investigated without organs more delicate than those of consciousness itself; that is, it is practically inexplicable. course it is left to shriek that personality requires a brain. It is really too bad that profound scientists will talk about the brain like school-boys. What is a brain? Is it a mass of gray and white pulp? What has gray and white to do with it? You say that all the brains you ever saw were gray and white. Well, the only brain you are certain contains a person is one you never saw and never will see, nor can you have a scientifically verifiable belief as to its color or consistency. Don't be puerile. What are the really distinguishing characteristics of a brain? Let it be said that a brain is an amount of matter individualized, and thereby become organically one and communicating with other matter in peculiar ways and exhibiting new characteristics not exhibited by its uncombined components. These new characteristics are those already mentioned as marking personality. The size and color and consistency and shape are the veriest incidents. I never saw a brain. Men believed in personality long before it was cornered in the sensorium, and are likely to do so after it shall be driven to much closer quarters. I do not know but that, to a being large enough to handle the universe as you can that of a cadaver, it may be gray and white and convoluted and all that; neither do I care. Define by essentials and not by accidents a molecule, a brain, and the universe, and you have much the same definition. In fact, it seems as if science were doing precisely what induction has been employed at from the earliest dawn of reason—sifting out the evidences of personality and thus subserving practical morality. It began with man, and proved it so firmly before it took its modern phase that it seems not to occur to many to discuss the

evidences of man's personality, if only his brain (it used to be his skin) is not off color. But it investigates the universe and reaches the same results, yet many of its followers sneer at a belief in the possibility of treating the universe under the formula of personality as a vulgar relic of barbarism unworthy of the "instructed." It is conceivable, of course, that such a distinction between man and the universe is justifiable, but certainly some good reason ought to be given for it. To prate about gray and white pulp in such a connection is to insult the hearers.

It is not popular to hint that the universe has any similarity to a ganglion. Some are likely to gasp "Pantheism" and retire backward,

"Improvisum aspris veluti qui sentibus anguem Pressit humi nitens."

Others will hear it contemptuously or derisively, while *bona fide* somnambulistic pantheists continue to dream their dream and leave one philosophically lonesome.

Yet we are constrained to conclude that science, instead of disenchanting the universe, has been firmly establishing the marks of formal personality. Ubi gentium sumus! What is to save us from the theologians? Let us, however, bravely suppress our bias and judge impartially. We may review the argument and seek an assailable point. The primary postulate is the authoritative moral code. If you deny it, there is no arguing with you. You are a sinner. "I at least do not know how to impart the notion of moral obligation to one who is entirely devoid of it" (Sidgwick). If you have reached full-blown critical self-consciousness so as to be out of the reach of sentimental suasion, and I am forced into controversy with you, my only argument will be the sword. Arbitrary power of some kindof God or man or circumstances, or all combined—founded the empire of conscience, and such power alone can vindicate her authority. Neither will I argue with you if you deny the necessary content of the moral law. While this may have been elaborated by unconscious reasonings, it was not, nor ever could have been, by conscious debate fixed in the psychical structure. Such ignorance constitutes you, if not a sinner, at least a savage or wild beast, and hence an outlaw. I will shun or tame you if

I can, or exterminate you if I must. In fact, this primary postulate of ethics, whether or not it originated in the same way, is enforced by precisely the same capital penalties as the primary postulates of mathematics or logic.

As to the criticism by science of this content, it will be observed that it justifies agnosticism only concerning the objective reality of consciousness, but does not touch formal integrity of personality, and therefore merely substitutes obligatory poetical personification in every case for the belief in real personality. It modifies in no respect whatever the practical content of the law.1 From the imperative proposition, "Make the supreme maxim of conduct regard your relationship to all persons (personificable objects)," follows with mathematical certainty the corollary, "In case of doubt as to the personificability of an object let the presumption be in its favor." As a special case under this corollary it follows that the universe can be de-personified only by the proof of the absence of the marks of personality, which, as a negative, is difficult and has not been satisfactorily accomplished. Wherefore it follows that until further advised I am under the same moral obligation to assume and respect the personality of the power behind nature as of that behind Mr. Spencer or my dearest friend.

Upon this may be based several remarks of the nature of scholia. It opens the way for a complete orthodox theology, stripped only of the hypostatizations of the theological and metaphysical eras. The Christian Incarnation with its attendant mysterious occurrences needs only to be apprehended as not inconsistent with the personality of the Power behind Phenomena, and it becomes credible and probable by ordinary historical evidence. A place is found and a test for miracles and an exceptional written revelation, which leaves intact the phenomenal continuity of the universe as a fair field for scientific exploration, and at the same time perfects the expression of its personality.

It follows, also, that the personal Power behind Phenomena must be assumed as the centre of my ethical system; not because the moral relation to Him, qua moral relation, is pecu-

¹ Since the teaching of science is that neurosis is not less extensive than psychosis.

liar, but because of the intimate and powerful ties that naturally subsist between myself and that absolute and omnipresent Power in which I live and move and have my being. "Closer is He than breathing, and nearer than hands and feet." If a practical science of conduct is to work well, its assumed centre should be that one of its objects whose ethical mass brings it nearest the absolute centre of gravity of the system. Theoretically I might stick my cane in the ground and construct an astronomical system about its head as a centre, transforming the whole mathematics of the science to the new assumption.¹ But such would be the delicacy of observation required and the intricacy of the computations involved that accuracy would be impracticable. The simplicity of the system is in proportion to the relative actual importance of its centre. Thus a theistic system of morals has an overwhelming advantage in the higher occupations of life over one whose basis of calculation is self. That proposed moral system whose centre is collective humanity experiences the cumbrousness of a "committee of the whole" and really escapes no difficulty, for before it can be made practicable the centre of gravity of the centre itself must be determined; that is, the science must be completed before it can be begun. And hero-worship only partially escapes the same trouble. The Copernican system of morals is the theistic. Thus, while the only motive of conduct which modern science can recognize is utterly egoistic, the constructive principle of the perfect moral system must be not only altruistic but even theistic.2

To most persons the *reductio ad absurdum* of this whole argument will appear in its substitution of formulative personification for real personality. The challenge is to such either to point out the fallacy or to locate the antinomy. Indeed if, in

[&]quot;Little flower—but if I could understand What you are, root and all and all in all, I should know what God and man is."

⁹ Observe that altruism, even merely formal, includes the reverential as well as the benevolent sentiments and functions. This is too infrequently remarked, and thus a God as not a possible object of benevolence ceases to be regarded as an object of altruistic exercise. Thus, also, Mr. Spencer fears altruism will be out of employment after a while, when we all become as gods. Not so: we will be busily engaged in worshipping one another,—like a scientific association.

spite of all the intense religious experiences or pseudo-experiences of the world, we are called upon to accept scientific agnosticism as to the reality of a divine Person, and to ascribe all this to poetic imagination, it is a step not long and certainly in the same direction to the denial of all real personality; so that the argument has at least a strong ad hominem force. objected, as it has, that "I am so far from feeling bound to believe for purposes of practice what I see no ground for holding as a speculative truth, that I cannot even conceive the state of mind which these words seem to describe, except as a momentary half-irrationality committed in a violent access of philosophic despair" (Sidgwick), the answer is that the doctrine that there is something hopelessly awry in the universe of human action is not merely a theological platitude; and it is time for the Spencerians to take account that "a violent access of philosophic despair" is molding the dismal creed of very many as fully emancipated from tradition as themselves, and is challenging them to champion their sentimental optimism in some more substantial way than by ringing the changes on the word "morbid;" since it is simply the doctrine of pessimism that all consciousness is morbid, and that this moral antinomy is the prime illustration of it.

The limits of this essay forbid the discussion of interesting questions: whether the inductive establishment of a formulative existence of something whose real existence can become an object of scientific knowledge only by the evolution of a new sense, or the extension to objects of one at present purely subjective, affords ground for a scientific faith in the ultimate evolution or extension of that sense—that is, whether the formal is prophetic of the real; whether there is any set of experiences imperfectly differentiated and integrated, any sensus vagus, suggesting that an altruistic sense may be moving in the womb of the ego; whether the awakening of such a sense would constitute a new species with experiences as unintelligible to man as some of his must be to the brutes; and whether it is incredi. ble that there should be those among us who have actual experimental knowledge of the objective reality of the conscious existence of their personal friends human and divine.

THE HISTORICAL PROOFS OF CHRISTIANITY.

THIRD ARTICLE: THE GOSPELS AN AUTHENTIC RECORD OF THE APOSTLES' TESTIMONY.

WHAT did the apostles testify? Is their testimony to be relied on? In the historical inquiry which we are pursuing, these are the main questions. The subject of the authorship and date of the Gospels concerns us from its relation to the first of these points. Only by investigating the origin of the Gospels can we ascertain whether these writings faithfully present the testimony given by the apostles. But proof, from whatever quarter it may come, that such is the fact, even tho not bearing directly on the question by what particular authors the Gospels were written, it is pertinent to adduce. And proof of this character, it will be seen, is not wholly wanting.

There is one remark to be made prior to entering on the discussion before us. The circumstance that the Gospels contain accounts of miracles gives rise in some minds to a conscious or secret disinclination to refer these writings to the apostles, or to regard them as a fair and true representation of their testimony. But this bias is unreasonable. Apart from the general consideration that if there is to be revelation there must be miracle, it has been already proved that accounts of miracles, and of some of the very miracles recorded in these histories, did enter into the narratives of the ministry of Jesus which the apostles were accustomed to give.

The universal reception of the four Gospels as having exclusive authority, by the churches in the closing part of the second century, requires to be accounted for if their genuineness is

¹ See Princeton Review, Nov. 1880.

denied. The literature which has survived from the latter part of the first century and the beginning of the second is scanty and fragmentary. But when we come out into the light in the last quarter of the second century, we find the Gospels of the canon in full possession of the field. We hear, moreover, from all quarters the declaration that these are the Gospels which have come down from the apostles. We are given to understand that their genuineness had never been questioned in the churches. There was no centralized organization, be it remembered, to pass judgment on their claims. They owed this universal acceptance to the concerted action of no priesthood, to The simple fact is that these books. the decree of no council. ascribed respectively to four authors, two of whom were apostles and the other two were not, were recognized by the Christian churches everywhere, and, it was alleged, had been recognized without dispute. Here is Irenæus, born about A.D. 130-perhaps five years earlier—in Asia Minor, bishop of the church of Lyons from A.D. 178 to 202; an upright man, in a conspicuous position, and with ample means of acquiring a knowledge of the churches in Asia Minor and Italy, as well as in Gaul. In defending Christian truth against the grotesque speculations of the Gnostics, he is led to make his appeal, at the beginning of the third book of his treatise, to the Scriptures. This leads him to present an account of the composition of the Gospels: how Matthew published "a written Gospel among the Hebrews in their own language;" Mark put in writing "the things that were preached by Peter:" Luke, "the attendant of Paul," wrote the third Gospel: and "afterwards John, the disciple of the Lord, who, also, leaned on his breast-he again put forth his Gospel while he abode at Ephesus in Asia." These Gospels, and no others, he tells us, the churches acknowledge. Fully to illustrate how Irenæus constantly assumes the exclusive authority of the Gospels of the canon would require us to transfer to these pages no small part of his copious work. Passing over the sea to Alexandria, we find Clement, who was born, probably at Athens, certainly not later than A.D. 160, and was at the head of the catechetical school in the city of his adoption from A.D. 190 to 203, having

¹ Adv. Hær., iii. 1, § 1.

previously travelled in Greece, Italy, Syria, and Palestine.' Referring to a statement in an apocryphal Gospel, he remarks that it is not found "in the four Gospels which have been handed down to us." 2 In another place he states the order in which these Gospels were written as he had learned it from "the oldest presbyters." Then from the church of North Africa we have the emphatic affirmations of Tertullian (born about A.D. 160) to the sole authority of the four Gospels which were written by apostles and by apostolic men, their companions. In the churches founded by the apostles, and by the churches in fellowship with them, he asserts, the Gospel of Luke had been received since its first publication. "The same authority of the apostolic churches," he adds, "will also support the other Gospels," of which Matthew, Mark, and John were the authors. The Muratorian canon, of Roman origin, the date of which is not far from A.D. 170, is a fragment which begins in the middle of a sentence. That sentence, from its resemblance to a statement made by an earlier writer, Papias, respecting Mark, as well as from what immediately follows in the document itself, evidently relates to this evangelist. This broken sentence is succeeded by an account of the composition of Luke, which is designated as the third Gospel, and then of John. In Syria, the Peshito, the Bible of the ancient Syrian churches, having its origin at about the same time as the Muratorian canon, begins with the four Gospels. The canon of Scripture was then in process of formation; and the absence from the Peshito of the Second and Third Epistles of John, Second Peter, Jude and Revelation, books which were disputed in the ancient church, is a proof at once of the antiquity of that version and of the value of the testimony given by it to the universal reception of the Gospels.

It must be borne in mind that the fathers who have been named above are here referred to, not for the value of their opinion, as individuals, in regard to the authorship of the Gospels, but as witnesses for the footing which they had in the churches. These Christian societies now encircled the Mediterranean. They were scattered over the Roman Empire from

¹ Euseb., H. E., v. 11. ² Strom., iii. 553

³ τῶν ἀνέμαθεν πρεσβυτέρων, Euseb., Η. Ε., vi. 14.

⁴ Adv. Marc., iv. 2-6.

Syria to Spain. No doubt the exultation of the fathers of the second century over the rapid spread and the prospects of Christianity led to hyperbole in describing the progress it had made.' But making all due allowance for rhetorical warmth, it is to be remembered that in writing for contemporaries it would have been folly for them intentionally to indulge in misstatement in a matter of statistics with which their readers were as well acquainted as they were themselves. Christians had become numerous enough to excite anxiety more and more in the rulers of the Empire. The question to be answered is how this numerous, widely dispersed body had been led unanimously to pitch upon these four narratives as the sole authorities for the history of Jesus. For what reasons had they adopted, nemine contradicente, these four Gospels exclusively, one of which was ascribed to Matthew, a comparatively obscure apostle, and two others to Luke and Mark, neither of whom belonged among the Twelve?

But the situation of these fathers personally, as it helps us to determine the value of their judgment on the main question, is worth considering. Irenæus has occasion, in connection with the passage already cited from him, to dwell on the tradition respecting the apostles' teaching which is preserved in the various churches founded by them. Of these churches he says that it is easy to give the list of their bishops back to foundation. By way of example, he states the succession of the Roman bishops. In these lists, as given by the ancient writers, there will be some discrepancies as to the earliest names, owing chiefly to the fact that in the time before episcopacy was fully developed, leading presbyters, and not always the same persons, would be set down in the catalogues.\(^3\) But a person who is

¹ There were Christians in Spain (Irenæus, Adv. Hær., i. 10, 2; Tertullian, Adv. Judæos, c. 7). If, as is probable, Spain is designated by the $\tau \delta$ τέρμα της δύσεως of Clement of Rome (Ep. v.), St. Paul visited that country. See Bishop Lightfoot's note ("The Epp. of Clement of Rome," p. 49).

² Tertullian, Adv. Judæos, c. 7; Apol., c. 37. Irenæus, Adv. Hær., i. 10, 1, 2; iii. 4, 1. Cf. Justin, Dial., c. 117. For Gibbon's comments on these statements, see "Decline and Fall," etc., ch. xv. (Smith's ed., ii. 213, n. 177). Gibbon refers to Origen's remark (Contra Cels., viii. 69) that the Christians are "very few" comparatively; but he omits another passage (c. ix.) of the same work, in which Origen refers to them as a "multitude" of all ranks.

⁸ Gieseler's "Church History," I. i. 3, § 34, n. 10.

familiar now with any particular church in whose history he has felt much interest will have little difficulty in recounting the succession of its pastors extending back for a century, and will not be ignorant of any very remarkable events which have occurred in its affairs during that period. Moreover, Irenæus was acquainted with individuals who had been taught by John and by other apostles. He had known, in his childhood, Polycarp, whose recollections of the apostle John were fresh. He had conferred with "elders;" that is, venerated leaders in the church, of an earlier day, who had been pupils of men whom the apostles had instructed, and some of whom had sat at the feet of the apostles themselves.2 Of one of these "elders" in particular he makes repeated mention, whose name is not given, but whom in one place he styles "apostolorum discipulus." Pothinus, whom Irenæus succeeded at Lyons, was thrown into prison in the persecution under Marcus Aurelius, A.D. 177, and died two days after, being past ninety years old. Pothinus was probably from Asia Minor, whence the church at Lyons was planted. memory ran back beyond the beginning of the century. He is one of many who had numbered among their acquaintances younger contemporaries of apostles. Clement of Alexandria was a pupil of Pantænus, who had founded the catechetical school there shortly after the middle of the second century. In all of the oldest churches there were persons who were separated by only one link from apostles.

The attempt has often been made to discredit the testimony of Irenæus by reference to a passage which really strengthens it. After asserting that there are four Gospels and no more, he fancifully refers to the analogy of the four winds, four divisions of the earth, four faces of the Cherubim, four covenants, etc. Says Mr. Froude: "That there were four true evangelists, and that there could be neither more nor less than four, Irenæus had persuaded himself because there were four winds or spirits," etc. It is plain to every reader of Irenæus that his belief in the four

¹ Adv. Hær., iii. 3, 4; Epist. ad Flor.

⁹ Adv. Hær., ii. 22, 5; iii. 1, 1; iii. 3, 4; v. 30, 1; v. 33, 3; v. 33, 4. Cf. Euseb., H. E., iii. 23, iv. 14, v. 8.

⁸ Adv. Hær., iv. 32, 1. ⁴ Adv. Hær., iii. 2, 7.

^{5 &}quot;Short Studies on Great Subjects," p. 213.

Gospels is founded on the witness given by the churches, and by well-informed individuals, to their authenticity; and that these analogies merely indicate how firmly established the authority of the Gospels was in his own mind and in the minds of all Christian people. It was something as well settled as the cosmical If some enthusiast for the Hanoverian house were to throw out the suggestion that there must be four and only four Georges, because there are four quarters of the globe, four winds, etc., Mr. Froude would hardly announce that the man's conviction of the historic fact that those four kings have ruled in England is founded on these fanciful parallels. Mr. Froude shrinks himself from his own assertion as quoted above: for he adds: "It is not to be supposed that the intellects of those great men who converted the world to Christianity were satisfied with arguments so imaginative as these; they must have had other closer and more accurate grounds for the decision," etc. But then he continues: "The mere employment of such figures as evidence in any sense shows the enormous difference between their modes of reasoning and ours, and illustrates the difficulty of deciding, at our present distance from them, how far their conclusions were satisfactory." If they had "other closer and more accurate" grounds of belief, why should such instances of weakness in reasoning, even if it be intended as strict reasoning, operate to destroy the value of their testimony? A man who is not a strict logician may be a perfectly credible witness to facts within his cognizance. But the inference suggested by Mr. Froude's remark as to the intellectual character of Irenæus is unjust. A single instance of weak reasoning is a slender basis for so broad a conclusion. Jonathan Edwards is rightly considered a man of penetrating intellect and of some skill in logic. Yet in his diary he makes this absurd remark: "Jan. 1728. I think Christ has recommended rising early in the morning, by his rising from the grave so early." Certainly no one would feel himself justified, on account of Edwards's remark, in disputing his word on a matter of fact within his personal cognizance. We do not mean that Irenæus had the same measure of intellectual vigor as Edwards; nevertheless he was not a weak man,

¹ Dwight's "Life of Edwards," p. 106.

and he furnishes in his writings a great many examples of sound reasoning. The inference unfavorable to the value of his testimony which Froude, in common with many others, has drawn from a single instance of fanciful argument or illustration is itself an example of very flimsy logic.

In quoting the statements of the Christian writers of the closing part of the second century, it is not implied, of course, that either they or their informants were incapable of error. Who does not know that traditions, the substance of which is perfectly trustworthy, may interweave incidental or minor details which, if not without foundation, at least require to be A tradition may take on new features of this character even in passing from one individual to another when there is an average degree of accuracy in both. But every intelligent historical critic knows the distinction which is to be made between essential facts and their accessories. It is only the ignorant, or the sophist who has an end to accomplish, that ignore this distinction and seek to apply the maxim, falsus in uno, falsus in omnibus, which relates to wilful mendacity, to the undesigned modifications which oral statements are almost sure to undergo in the process of transmission from one to another. It is evident that the few documents on which the Christians of the second century depended for their knowledge of the life and ministry of Christ must have had an importance in their eves which would render the main facts as to the origin of these writings of the highest interest and importance. As to these documents, the foundation of the faith for which they were exposing themselves to torture and death, information would be earnestly sought and highly prized. That this curiosity, which we should expect to find, really existed, the ecclesiastical writers plainly indicate.

Let us now go back from the age of Irenæus to the first half of the second century. In that obscure period, where so many writings which might have thrown light on the questions before us have perished, there is one author who is competent to afford us welcome information. It is Justin Martyr. He was born in Palestine, at Flavia Neapolis, near the site of the ancient Sichem. From his pen there remain two apologies, the first and principal of which was addressed to Antoninus Pius, A.D. 147 or 148, and a dialogue with Trypho, a Jew. In these writings, two of which

are directed to heathen, and the third treats of points in controversy between Jews and Christians, there was no occasion to refer to the evangelists by name. The sources from which he draws his accounts of the life and teaching of Jesus are styled "Memoirs," a term borrowed from the title given by Xenophon to his Reminiscences of Socrates. Were these "Memoirs" the four Gospels of the canon?

The first observation to be made is that a tolerably full narrative of the life of Jesus can be put together from Justin's quotations and allusions, and that this narrative coincides with the canonical Gospels. The quotations are not verbally accurate. Neither are Justin's citations from heathen writers or the Old Testament prophets. He is not always in verbal agreement with himself when he has occasion to cite a passage or refer to an incident more than once.² It was not a custom of the early fathers to quote the New Testament writers with verbal accuracy. Justin blends together statements in the different Gospels. This is easily accounted for on the supposition that he was quoting from memory, and when it is remembered that for the purpose which he had in view he had no motive to set off carefully to each evangelist what specially belonged to him. A similar habit of connecting circumstances from the several Gospels is not unfrequent at present, familiar as these writings have become. It is impossible here to combine all the items of the Gospel history which may be gathered up from Justin's writings; but an idea of their character and extent may be given by casting a portion of them into a consecutive narrative.3

¹ On the subject of the "Memoirs" of Justin and his quotations, the following writers are of special value: Semisch, "Die apostolischen Denkwürdigkeiten des Märtyrers Justinus" (1848); Sanday, "The Gospels of the Second Century," pp. 88–138; Norton, "The Evidences of the Genuineness of the Gospels," vol. i. pp. 200–240, ccxiv–ccxxxiii; Westcott, "History of the Canon of the N. T.," pp. 83–150; Prof. E. Abbot, "The Authorship of the Fourth Gospel: External Evidences" (1880). Also Bleek's "Einl. in d. N. T." (ed. Mangold), p. 271, seq.; Hilgenfeld's "Kritisch. Untersuch. über die Evangell. Justins, der Clementiner, u. Marcions;" and "Supernatural Religion" (7th ed.).

² E.g., Matt. xi. 27. See Apol., i. c. 63; Dial., c. 106.

³ The quotations from Justin are collected in Credner's "Beiträge zur Einl.," etc., pp. 150-209. The *résumé* above is mainly abridged from Dr. Sanday's "The Gospels in the Second Century," pp. 91-98. Summaries of a like nature are given in Mr. Sadler's "The Lost Gospel and its Contents" (London, 1876).

The Messiah, according to Justin, was born of a virgin. Particulars of the Annunciation (Luke i. 26, 31, 35) and of Joseph's dream (Matt. i. 18-25) are given. He was born in Bethlehem, where his parents were, in consequence of the census under Cyrenius. He was laid in a manger, was worshipped by the Magi, was carried by his parents into Egypt on account of the machinations of Herod which led to the massacre of the From Egypt they returned after the children in Bethlehem. death of Herod. At Nazareth Jesus grew up to the age of thirty, and was a carpenter (Mark vi. 3). There he remained until John appeared in his wild garb, declaring that he was not the Christ (John i. 19, seq.), but that One stronger than he was coming, whose shoes he was not worthy to bear. John was put in prison, and was beheaded, at a feast on Herod's birthday, at the instance of his sister's daughter (Matt. xiv. 6, seq.). This John was the Elias who was to come (Matt. xvii. 11-13). Jesus was baptized by John in the Jordan. The temptation followed. To Satan's demand to be worshipped, Jesus replied, "Get thee behind me, Satan," etc. Jesus wrought miracles, healing the blind, dumb, lame, all weakness and disease, and raising the dead. He began his teaching by proclaiming that the kingdom of heaven is at hand (Matt. iv. 17). introduces a large number of the precepts of the Sermon on the Mount, sayings from the narrative of the centurion of Capernaum (Matt. viii. 11, 12; Luke xiii. 28, 29), and of the feast in the house of Matthew. He brings in the choosing of the twelve apostles, the name Boanerges given to the sons of Zebedee (Mark iii. 17), the commission of the apostles, the discourse of Iesus after the departure of the messengers of John, the sign of the prophet Ionas, Peter's confession of faith (Matt. xvi. 15–18). the announcement of the passion (Matt. xvi. 21). Justin has the story of the rich young man; the entry of Jesus into Jerusalem; the cleansing of the temple; the wedding-garment; the conversations upon the tribute-money, upon the resurrection (Luke xx. 35, 36), and upon the greatest commandment; the denunciations of the Pharisees; the eschatological discourse; and the parable of the talents (Matt. xxv. 14-30). Justin's account of the institution of the Lord's Supper corresponds to that of Luke. Jesus is said to have sung a hymn at the close of the

Supper, to have retired with three of his disciples to the Mount of Olives, to have been in an agony, his sweat falling in drops to the ground (Luke xxii. 42-44). His followers forsook him. He was brought before the scribes and Pharisees, and before He kept silence before Pilate. Pilate sent him bound to Herod (Luke xxiii. 7). Most of the circumstances of the crucifixion are narrated by Justin, such as the piercing with nails, the casting of lots, the fact of sneers uttered by the crowd, the cry, "My God, my God, why hast thou forsaken me," and the last words, "Father, into thy hands I commend my spirit" (Luke xxiii. 46). Christ is said to have been buried in the evening the disciples being all scattered, according to Zech. xiii. 7 (Matt. xxvi. 31, 56). On the third day he rose from the dead. He convinced his disciples that his sufferings had been predicted (Luke xxiv. 26, 46). He gave them his last commission. They saw him ascend into heaven (Luke xxiv. 50). The Jews spread a story that the disciples stole the body of Iesus from the grave.

This is a mere outline of the references to the Gospel history which are scattered in profusion through Justin's writings. full citation of them would exhibit more impressively their correspondence to the Gospels. The larger portion of the matter, it will be perceived, accords with what we find in Matthew and Luke; a small portion of it, however, is found in Mark exclusively. But there are not wanting clear and striking correspondences to John. The most important of these single passages is that relating to regeneration; which, notwithstanding certain verbal variations, to be noticed hereafter, bears a close resemblance to John iii. 3-5. Again, Christ is said by Justin to have reproached the Jews as knowing neither the Father nor the Son (John viii. 19, xvi. 3). He is said to have healed those who were blind from "their birth," 2 using here a phrase which, like the fact, is found in John alone among the evangelists (John ix. 1). Strongly as these and some other passages resemble incidents and sayings in John, the correspondence of Justin's doctrinal statements respecting the divinity of Christ and the Logos to the teaching of the Fourth Gospel

¹ Apol., i. 61.

are even more significant. Justin speaks of Christ as the Son of God, "who alone is properly called Son, the Word, who also was with him, and was begotten before the works." He says of Christ that "he took flesh and became man." We are "to recognize him as God coming forth from above, and Man living among men.³ Conceptions of this sort, expressed in language either identical with that of John or closely resembling it, enter into the warp and woof of Justin's doctrinal system. They are, both in substance and style, Johannine. Professed theologians may think themselves able to point out shades of difference between Justin's idea of the pre-existence and divinity of Christ and that of the Fourth Gospel. But if there be an appreciable difference, it is far less marked than differences which subsist among ancient and modern interpreters of the Gospel without number. The efforts of the author of "Supernatural Religion" to make out a great diversity of idea from unimportant variations of language—as in the statement that the Logos "became man," instead of the Hebraic expression, "became flesh"hardly merit attention. Some of his criticisms apply with equal force to the Nicene Creed, and would prove its authors to have been unaccquainted with the Fourth Gospel, or to have disbelieved in it.4

The next observation respecting Justin is that his references to events or sayings in the Gospel history which have not substantial parallels in the four evangelists are few and insignificant. They embrace not more than two sayings of Jesus. The first is, "In what things I shall apprehend you, in these will I judge you," which is found also in Clement of Alexandria and Hippolytus. The second is: "There shall be schisms and heresies," a prediction referred also to Christ by Tertullian and

¹ Apol., ii. 6. ² Apol., ii. 5. ³ Apol., i. 23.

⁴ See "The Lost Gospel," etc., p. 91. In Dial., c. 105, Justin is more naturally understood as referring a statement peculiar to John to the "Memoirs." See Prof. E. Abbot, "Authorship of the Fourth Gospel," p. 43.

⁵ Dial., c. 47. ⁶ "Quis div. salvus," c. 40.

⁷ Opp. ed. de Lag., p. 73 (Otto's Justin, i. 2, p. 161, n. 21). The origin of the passage has been traced by some to Ezekiel, to whom Justin refers in the context. See Ez. vii. 3, 8, xviii. 30, xxiv. 14, xxxiii. 20. Otto suggests that it may been a marginal summary attached by some one to Matt. xxiv. 40, seq; xxv. 1, seq.

⁸ Dial., c. 35; cf. c. 51; cf. 1 Cor. xi. 18, 19.
⁹ De Præscript. Hær., c. 4.

Clement.1 Thus both passages occur in other writers who own no authoritative Gospels but the four of the canon. resents the voice from heaven at the baptism of Jesus as saying, "Thou art my Son, this day have I begotten Thee," 2 a combination of expressions which is found in the Codex Bezæ, in Clement of Alexandria,3 in Augustine, and 4 is said by him to be the reading in some manuscripts, tho not the oldest.5 The recurrence of the same expression in Ps. ii. 7, or Acts xiii. 33, Heb. i. 5, v. 5, led naturally to a confusion of memory out of which this textual reading may have sprung. That Jesus was charged by the Jews with being a magician 6 is a statement made by Lactantius as well as by Justin, and is probably a reference to the accusation that he wrought miracles by the aid of Beelzebub. The incidental saying that the ass on which Jesus rode was tied to a vine 8 was probably a detail taken up from Gen. xlix. 11, with which it is connected by Justin. The saying connected with the designation of Jesus as a carpenter, that he made ploughs and yokes, may have sprung from his words in Luke ix. 62 and Matt. xi. 29, 30. It was found pleasant to imagine him to have once made these objects to which he figuratively referred.¹⁰ Justin speaks of Jesus as having been born in a cave," but he also says that he was laid in a manger. the stable which contained the manger was a cave, or grotto, was a current tradition in the time of Origen.¹² One other allusion completes the brief catalogue of uncanonical passages in Justin. He speaks of a fire kindled on the Jordan in connection with the baptism of Jesus, a circumstance which might have mingled itself early in the oral tradition. These constitute the whole of the supplement to the contents of the four Gospels to be found in the mass of Justin's references; 13 and, as the author of "Super-

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    Strom., vii. 15, § 90.
    Dial., c. 88; cf. c. 103.
    Apol., i. c. 32.
    Pæd., i. 6.
    Dial., c. 88.
    Enchir. ad Laur., c. 49.
    See Otto, i. 2, p. 324; Semisch, p. 393.
    De Cons. Evv., ii. 14 (Otto, i. 1, p. 325).
    Dial., c. 78.
    Cont. Celsum, i. 51.
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¹³ Other slight variations from the Gospels are sometimes owing to the wish of Justin to accommodate the facts in the life of Jesus to the predictions of the Old Testament. This is especially the case, as might be expected, in the dialogue with Trypho, the Jew. The following, it is believed, are all the instances of cir-

natural Religion" observes, "Justin's works teem with these quotations." In the index to Otto's critical edition they number two hundred and eighty-one. It may be here remarked that not one of these supplementary scraps is referred by Justin to the "Memoirs."

It is thus evident that whatever the "Memoirs" were, their contents were substantially coincident with the contents of the four Gospels. It is a necessary inference that at the time when Justin wrote there was a definite, well-established tradition respecting the life and teaching of Jesus; for the "Memoirs," he tells us, were read on Sundays in the churches, in city and country. The period of his theological activity was from about A.D. 140 to 160. None will probably be disposed to question that as early, at least, as A.D. 135 he was conversant with this Gospel tradition, and knew that it was inculcated in the churches. The Jewish war of Barchochebas (A.D. 131 to 136), he says, was in his own time. But that date (A.D. 135) to which the personal

cumstantial deviation from the evangelists. Mary is said to have descended from David (Dial., c. 43; cf. cc. 45, 100, 120). This statement is connected (c. 68) with Is. vii. 13. Irenæus and Tertullian say the same of Mary. The Magi came from Arabia (Dial., 77; cf. 78, 88, 102, 106), on the basis of Ps. lxxii. 10, 15; Is. lx. 6. The same is said by many later writers (Semisch, p. 385). In connection with Ps. xxii. 11, it is said (Dial., 103) that when Jesus was seized not a single person was there to help him. In Dial., c. 103, Pilate is said to have sent Jesus to Herod bound, this being suggested by Hosea x. 6. So Tertullian, Adv. Marc., iv. c. 42; also Cyril of Jerusalem (see Otto, i. 2, p. 370, n. 14). The Jews, it is said (Apol., i. 35), set Jesus on the judgment-seat, and said, "Judge us," in fulfilment of the prediction in Is. lviii. 2; the circumstance referred to being recorded in Matt. xxvii. 26, 30. In Dial., i. 101 (Apol., i. 38) the bystanders at the cross are said to have distorted their lips, the thing predicted in Ps. xxii. 8; and in Apol., i. 38, on the basis of several passages in the Psalms, they are said to have cried out, "He who raised the dead, let him save himself." In Apol., i. 50, the disciples after the crucifixion are said to have fled from Christ and denied him; and in c. 106 (cf. c. 53) they are said to have repented of it after the resurrection; the prophetic references being Zech. xiii. 17 and Is. liii. 1-8. In Dial., c. 35, Jesus is represented as predicting that "false apostles" (as well as false prophets) will arise. This is not presented as an instance of prophecy fulfilled; but the same thing is found in Tertullian, De Præsc. Hærett., c. 4, and in other writers. In Dial., c. 51, Jesus predicts his reappearance at Jerusalem, and that he will eat and drink with his disciples-a free paraphrase of Matt. xxvi. 29 and Luke xxii. 18. Not one of these passages, in the context where it occurs, would naturally lead the reader to presuppose any other source of them than the canonical Gospels.

¹ Apol., i. 67.

² Apol., i. 31.

recollection of Justin on this subject extended was only thirtyseven years after the accession of Trajan, an event which preceded the death of the apostle John at Ephesus.1 If the date of Justin's acquaintance with the habitual teaching of the church respecting the life of Jesus were 1881, in the room of 135, the termination of the apostle's life would be set no farther back from us than 1844. Justin incidentally remarks that many men and women sixty or seventy years old, who had been Christians from their youth, were to be found in the churches.2 Many of his Christian contemporaries could remember as far back as the closing decades of the second century. Is it reasonable to believe that in the interval between John and Justin, in the organized Christian societies of Syria, Asia Minor, and Italy, with which Justin is considered to have been conversant, the established conception of the life of Jesus, of his doings and savings, underwent an essential alteration?

Before bringing forward direct proof that the "Memoirs' were the Gospels of the canon, it is well to notice a rival theory which has been advanced to disprove this hypothesis. Partly on the basis of the uncanonical passages in Justin, and partly on another ground soon to be mentioned, certain critics have contended that the mass of his quotations were derived from some other Gospel than the Four; in particular, from the "Gospel of the Hebrews," or from an apocryphal "Gospel of Peter," which has been assumed, without evidence, to have been a form of that Gospel. There was an Aramaic Gospel, commonly called "the Gospel according to the Hebrews," which was extensively used by Jewish Christians in Palestine and Syria. Hegesippus (about A.D. 150) is said by Eusebius to have borrowed some things from it.3 It is referred to by Clement of Alexandria.4 Origen also cites from it; 5 and Jerome translated it into Greek and Latin.6 It owed its repute mainly to a prevalent idea that it was the original of the Gospel of Matthew. This may, perhaps, have been true of it in its primitive form; for it underwent various modifications. In all its forms, however, it retained its affinity to our first Gospel. It is evident from the fragments

¹ Irenæus, Adv. Hær., ii. 22, 5, iii. 3, 4.
⁴ Strom., ii. 9.

² Apol., i. 15.

⁵ Comment. in Johann., tom. iv.; Homil. in Jerem., 15.

⁸ H. E., iv. 22.

⁶ De Vir. Ill., c. 2.

that remain, twenty-two of which have been collected by Hilgenfeld, that the canonical Gospel is the original, and that the deviations from it in parallel texts in the Gospel of the Hebrews are of a later date. "The fragments preserved in Greek," says Professor Lipsius, "by Epiphanius"-which are tinged with Essæan doctrine, and have some statements also coincident with Luke—"betray very clearly their dependence on our canonical Gospels, tho it is impossible, on the other hand, to prove that the Hebrew text was a translation back into Aramaic from the Greek. The Aramaic fragments also contain much that can be explained and understood only on the hypothesis that it is a recasting of the canonical text." All that we know of the "Gospel of Peter" is from a statement, preserved in Eusebius, of Serapion, who was bishop of Antioch at the end of the second and beginning of the third century. had found this book in use in the town of Rhossus, in Cilicia. It favored the heresy of Docetism, altho in the main orthodox.3 There is no proof that it was a narrative. It was probably of a doctrinal cast. Eusebius and Jerome refer to it as a heretical book which no early teacher of the church had made use of. Justin in one passage, recording an incident respecting Peter, professes to derive it from "his Gospel." 6 The incident is found nowhere except in the canonical Gospel of Mark. If the usual reading is correct, there is no reason to question that this is the Gospel to which Justin here refers. But there are grounds for the opinion that the text should be amended by substituting the plural of the pronoun for the singular, and that the reference is, as ordinarily in Justin, to the memoirs of "the apostles."

About forty years ago, Credner, a theologian of Giessen, published his critical works on the New Testament, in which the quotations of Justin were collected and tabulated. The judgment

 $^{^1}$ Nov. Test. extra can. recept., Fasc. iv. pp. 5–38. Mr. E. B. Nicholson thinks that thirty-three can be discovered. See "The Gospel according to the Hebrews," etc., pp. 28–77.

² Smith and Mace's "Dict. of Christ. Biogr.," art. "Gospels Apocryphal," vol. i., p. 710.

³ Eusebius, H. E., vi. 12.

⁴ H. E., iii. 25.

⁵ De Vir. Ill., 1.

⁶ Dial., c. 106.

⁷ See Otto's note (10), ad loc.

of this scholar did not in every case keep pace with his learning. He held that the first three Gospels were in the hands of Justin, and he believed in the Johannine authorship of the fourth; but he attributed an exaggerated influence to the Jewish-Christian Gospels, and broached the opinion that Justin drew the main portion of his quotations from them. The Tübingen doctors started with the facts and data of Credner, and proceeded to push his theory to the extreme of excluding altogether the canonical Gospels from the circle of Justin's authorities. The author of "Supernatural Religion" treads closely in their footsteps. He attributes Justin's quotations to an Ebionite document that has passed away. One argument for this view is from the character of the verbal deviations in Justin's quotations from the text of the Gospels. This argument is destitute of force. His quotations are not more inexact than those of other fathers which are known to be derived from the canonical Gospels. one of the most striking instances of inexact quotation (Matt. x. 27; cf. Luke x. 22), the same variations from the canonical text are found in Clement of Alexandria, Origen, and Irenæus.2 In repeated instances Justin attributes passages to one prophet which belong to another.3 He quotes the Old Testament and heathen writers with the same sort of freedom. Where Justin varies from the Septuagint, he often varies in different places in the same manner. Hence uniformity of variation does not in the least warrant the inference of the use of other books than the Gospels. The main argument which is relied on to prove the non-canonical source of Justin's quotations is the alleged identity of some of them which deviate from the canonical text with quotations in the Clementine Homilies, which are assumed to be from a Hebrew Gospel. The answer to this is conclusive. First, the author of the Homilies used the synoptical Gospels, and he presents at least one passage which is undeniably from John. But, secondly, the alleged identity does not exist. The premise of the argument is false. Of Justin's quotations generally, it is true that so far from tallying with those of the Homilies, they differ verbally from them as widely as the same quotations differ from the literal text of our evangelists. Of the five quotations

¹ See Semisch, p. 367.

² E.g., Apol., i. 53, where a passage in Isaiah is credited to Jeremiah.

on which the argument for identity of origin rests, it has been demonstrated that there is no such resemblance as the argument assumes to exist. What can be the worth of reasoning which. were it valid, would compel us to hold that Jeremy Taylor drew his knowledge of the teachings and acts of Christ, not from the Gospels of the canon, but from a lost Ebionitic document? On this subject Professor Lipsius, a scholar admitted to be free from the apologetic bias which is so freely, and often so groundlessly, imputed to defenders of the genuineness of the Gospels, says: "The attempt to prove that the two writers [Justin and the author of the Homilies] had one such extra-canonical authority common to them both, either in the Gospel of the Hebrews or in the Gospel of St. Peter, has altogether failed." "Herewith," observes the same writer, "fall to the ground all those hypotheses which make the Gospel of Peter into an original work made use of by Justin Martyr, nigh related to the Gospel of the Hebrews, and either the Jewish-Christian basis of our canonical St. Mark or, at any rate, the gospel of the Gnosticizing Ebionites."2 Certain passages of Scripture are not unfrequently misquoted in the same way, owing to causes which in each case are readily explained. There are, so to speak, stereotyped errors of quotation. Another occasion of greater or less uniformity in verbal deviations from the text as we have it is the diversity of manuscripts. Attention to the ordinary operations of memory, and more familiarity with textual criticism, would have kept out untenable theories of the kind just reviewed.

Justin was a native of Palestine. He may have been acquainted with the Gospel of the Hebrews, as other fathers were. He may have read in it that Jesus made ploughs and yokes, and that a fire was kindled in the Jordan at his baptism, although this last tradition is differently given in that Gospel.³ There is

¹ See Prof. E. Abbot, "Authorship of the Fourth Gospel," p. 31, seq.; 100, seq. Prof. Abbot's exhaustive investigation has settled the question of the derivation of the passage in Justin on regeneration (Apol., i. 61) from John iii. 3-5. Cf., on Justin and the Clementines, Westcott, "Hist. of the Canon," p. 129, seq., and note D, p. 155; Dr. E. A. Abbot, Enc. Brit., vol. x. p. 818.

² Dict. of Christ. Biogr., vol. ii. p. 712.

³ See Nicholson, "The Gospel of the Hebrews," etc., p. 40. The statement is found for substance in two ancient Latin MSS., and is perhaps alluded to by Juvencus, a Christian writer of the fourth century.

no proof, however, that he picked up these circumstances from any written source. They were probably affoat in oral tradition before they found their way into books. But there is decisive proof that the Gospel of the Hebrews was not one of the "Memoirs" which were his authoritative sources. That was a Gospel of Judaic sectaries; and Justin was not an Ebionite. There is not a shadow of reason to suppose that the Gospel of the Hebrews was ever read in the churches which he must have had most prominently in mind. It is only necessary to observe how he describes the "Memoirs," to be convinced that the Gospels of the canon are meant. He speaks of them as composed by "the apostles and their companions," and this he does in connection with a quotation which is found in Luke. This accounts for his adding the term "companions" to his usual designation of these documents. This is the same mode of describing the Gospels which we find in Tertullian and in other later writers.² In one place, in the dialogue with Trypho, he calls them collectively "the Gospel," a term applied to the contents of the four, taken together, by Irenæus and Tertullian in the same century. He says, however, expressly that they are called "Gospels." Apart from this explicit statement, it is preposterous to imagine that Justin can have one document only in mind in his references to the "Memoirs." Was that document the joint production of the "apostles and their companions"? This would be a case of multiple authorship without a parallel in literature. If the hypothesis of the author of "Supernatural Religion" were tenable, we should have to hold that a Gospel, comprising in itself the contents of the four of the canon, was read, in the middle of the second century, in the churches "in city and country," and was then, within a score of years, silently superseded by four Gospels of unknown authorship, among which its contents were distributed. The ancient document of established authority vanished as if by magic at the advent of these new-comers, among whom it was somehow partitioned! And this miraculous exchange, which took piace when Irenæus was not far from thirty years old, occurred without his knowledge! Such an hypothesis is too heavy a tax on

¹ Dial., c. 103. ² See Tertullian, Adv. Marc., iv. 2. ³ Apol., i. 66.

credulity. Scholars of all types of opinion are now disposed to accept the conclusion, which should never have been disputed, that Justin used all the Gospels of the canon; and it is safe to predict that there will be a like unanimity in the conviction that it is these alone which he designates as "Memoirs by the Apostles and their Companions."

The proposition that Justin's "Memoirs" were the four Gospels is corroborated, if it stood in need of further support, by the fact that Tatian, who had been his hearer, and speaks of him with admiration, wrote a Harmony of the Four Gospels. Tatian is intermediate between Justin and Irenæus. He flourished as an author between A.D. 155 and 170. In his extant "Address to the Greeks" are passages evidently drawn from John's Gospel.2 Eusebius says that, "having formed a certain combination and bringing together of Gospels-I know not how-he has given this the title 'Diatezseron;' that is, the Gospel by the four," etc. The expression "I know not how" implies, not that Eusebius had not seen the book, but that the plan seemed strange to him.3 At the beginning of the fifth century Theodoret tells us that he had found two hundred copies of the work in circulation, and had taken them away, substituting for them the four Gospels. A Syrian writer, Bar Salibi, in the twelfth century had seen the work; he distinguishes it from another Harmony by Ammonius; and he testifies that it began with the words, "In the beginning was the Word." A commentary on this Diatezseron, Bar Salibi states, had been made in the fourth century by Ephraem Syrus. This is not all the evidence in support of the assertion of Eusebius on this subject. The recent discussion by Bishop Lightfoot has placed beyond reasonable doubt the correctness of it. The composition of such a work, in which the four Gospels were probably worked together into one narrative, is an independent proof of the recognition which they enjoyed, and is an additional proof that the same Gospels constituted the "Memoirs" of Justin.

There were a few writings, not included in the canon, which were sometimes read in the early churches for purposes of edification, and some of these were held by some of the fathers to

3 See Lightfoot, Contemporary Review for May 1877, p. 1136.

¹ H. E., iv. 29; Tatian, Orat. ad Græcos, c. 18. ² cc. 4, 5, 13, 19.

have a certain claim to inspiration. In the list are embraced the Epistle ascribed to Barnabas, the Epistle of Clement of Rome, and the Shepherd of Hermas. A book of much less note, an Epistle of Soter, bishop of Rome, is also said to have been sometimes read in churches; and there are some traces of a similar use of an "Apocalypse of Peter," which Eusebius and Jerome brand as apocryphal. Not one of these books was a narrative. None of them ever had anything like the standing of the documents which recorded the facts in the public ministry of Christ, on which the very life of the church depended. They were read in some of the churches for a time; but even fathers who regard them with honor, as seen in the example of Clement of Alexandria, do not hesitate to criticise their teaching.1 "Memoirs" of Justin were narratives, placed by all the churches on a level with the prophets of the Old Testament.2 The gradual separation of the didactic writings whose titles have been given from the books of the canon does not in the least help us to comprehend how the documents referred to by Justin could have been expelled from the churches and perished out of sight.

It is sometimes imagined, if not asserted, that there were apocryphal Gospels which were widely used in the churches of the second century, and shared in the esteem accorded to the four of the canon. This is a groundless impression. The apocryphal Gospels which are now extant, relating to the nativity and child-hood of Jesus, and to the Virgin Mary, never pretended to be anything more than supplements to the received Gospels. They are of a much later date than the age of Justin. It has been thought by some that two or three of them existed in an earlier, rudimental form at that day.³ Such was the opinion of Tischen-

¹ Clement (Pæd., ii. 10, ed. Potter, p. 220) dissents from a statement of Barnabas (c.x.). Origen more definitely separates these writings from those which are authoritative. Cf. Bleek, Einl. in d. N. T., p. 755. Yet at Alexandria there was a stronger tendency to accept writings of this class than existed elsewhere in the church.

² Apol., i. 67.

³ It may be well to state what apocryphal Gospels present the slightest plausible claim to great antiquity.

The "Protevangelium of James" treats of the nativity of Mary. Origen refers to it by name (In Matt., tom. x. 17, ed. Migne, vol. iii. p. 875). But it could

dorf. But even this is doubtful. The Gospel of the Hebrews. or the Hebrew St. Matthew, in its various redactions, had a wide acceptance among the different Jewish sects. But, this Gospel and Marcion's mutilated Luke excepted, there were no uncanonical Gospel narratives which we have reason to think had any extensive circulation among professed Christians. There were no rivals of the "Memoirs" to which Justin referred. Numerous books were fabricated among heretical parties, but, tho they might bear the name of "Gospels," they were generally of a didactic nature. This is the case with "the Gospel of the Truth," which Irenæus and Tertullian inform us had been composed by the Valentinians. It is a powerful argument for the genuineness of the canonical Gospels that the Gnostics are constantly charged with bolstering up their doctrines by perverse interpretation of the Gernels, but are not accused of bringing forward narratives of their own at variance with them. On this subject Professor Norton remarks: "Irenæus and Tertullian were the two principal writers against the Gnostics, and from their works it does not appear that the Valentinians, the Marcionites, or any other Gnostic sect, adduced in support of their opinions a single narrative relating to the public ministry of Christ besides what is found in the Gospels. It does not appear that they ascribed to him a single sentence of any imaginable importance which the evangelists have not trans-It does not appear that any sect appealed to the

not be the existing book that he used, as is shown by Professor Lipsius, Dict. of Christ. Biogr., ii. 702. Clement of Alexandria (Strom., vii.) is thought to have referred to it. There is no proof that Justin (in Dial., c. 78) borrowed from it. Says Professor Lipsius: "There is, indeed, no clear warrant for the existence of one present text of the Protevangelium prior to the time of Peter of Alexandria (311)." Gnostic and Ebionitic features are mingled in it.

The Acta Pilati forms the first part of the Gospel of Nicodemus. Justin (Apol., i. 28, 36) refers to the "Acts of Pilate," as does Tertullian (Apol., 21; cf. 5). Both have in mind probably not any book, but an official report, which they assume to exist in the public archives at Rome. Eusebius (H. E., ii. 2) refers to a blasphemous pagan forgery under this same title, which was of recent origin. The first trace of the present "Acts of Pilate" is in Epiphanius (A.D. 376), Hær., 50, I.

A Gospel of St. Thomas is referred to by Origen (Hom. in Luc., i.). It was used by the Gnostic sects of Marcosians and Naassenes (Hippol., Ref. Omn. Hær., v. 2; cf. Irenæus, Adv. Hær., i. 20, 1). Portions of this book may exist in the extant Gospel of the same name. It relates to the boyhood of Christ.

authority of any history of his public ministry besides the Gospels, except so far as the Marcionites, in their use of an imperfect copy of St. Luke's Gospel, may be regarded as forming a verbal

exception to this remark."

With the exception of the Valentinian "Gospel of Truth," the reference to which is contained in a disputed passage of Tertullian, it is true, as Professor Norton states, that this father "nowhere speaks of any apocryphal Gospel, or intimates a knowledge of the existence of such a book." In all the writers of the first three centuries there are not more quotations professedly derived from apocryphal books called by them Gospels than can be counted on the fingers of one hand. These citations in the fathers, however, involve no sanction of the books from which they are taken. Clement of Alexandria quotes the "Gospel of the Egyptians," but he quotes it to condemn it. If in the second century, as well as later, the Gospels of the canon were not the authorities from which the church derived its knowledge of the life and teachings of Jesus, there is no known source whence that knowledge could have been obtained.

Celsus, the most distinguished literary opponent of Christianity in the second century, may be joined with the Gnostics as an indirect witness for the Gospels of the canon. He wrote, perhaps, as early as Marcus Antoninus (A.D. 138–161); but if, as Keim thinks, he composed his book under Marcus Aurelius, in A.D.

¹ Genuineness of the Gospels, iii. 222.

² Ibid., iii. 227. Tertullian expressly states that Valentinus used all the four Gospels (De Præscript. Hær., c. 38). On the sense of videtur in the passage, See Prof. E. Abbot, "Authorship of the Fourth Gospel," p. 81, note.

Solution The following is a list of them: Origen once quotes a statement from the "Gospel of Peter" (Comment. in Matt., tom. x. 462, 463). Clement of Alexandria twice refers to statements in the "Gospel of the Egyptians" (Strom., iii. 9, 13). In the so-called II. Ep. of Clement of Rome are several passages thought to be from this Gospel; but the source is not named. See Lightfoot's "Clement," pp. 192, 193, 207 seq., 311. Clement of Alexandria thrice (Strom., ii. 9, iii. 4, vii. 13) cites passages from "The Traditions," which was not improbably another name of the "Gospel of Matthias."

Of these authors Pseudo-Clement is the only one who seems to attribute authority to the book to which he refers. The "Gospel of the Egyptians" was used by an ascetic sect, the Encratites (Clem. Alex., iii. 9). The "Encratite tendencies" of the Homily of Pseudo-Clement are noticed by Bishop Lightfoot, "Clement of Rome: Appendix," p. 311.

178, he was a contemporary of Irenæus.' He had the Christian literature before him. He showed no lack of industry in searching out whatever could be made to tell against the Christian cause. As in the case of Justin, the Gospel history can be constructed out of the passages cited from Celsus by Origen.² But there is not an incident or a saying which professes to be taken from Christian authorities that is not found in the canonical Gospels.³ With all of these, as Keim allows,⁴ he shows himself acquainted. Had there been apocryphal Gospels which had attained to any considerable circulation in the church, even at a date thirty or forty years previous to the time when he wrote, this astute controversialist would have found copies of them, and would have availed himself of the welcome aid to be derived from their inventions.

Passing by other proofs, we proceed to consider one testimony to the Gospels which carries us back into the company of the immediate followers of Christ. It is that of Papias, bishop of Hierapolis. He is spoken of by Irenæus as "a man of the old time." 5 He was a contemporary of Polycarp, who was born A.D. 60 and died A.D. 155. He had, also, known the daughters of Philip, either the apostle or (less probably) the evangelist.7 He is said by Irenæus to have been a disciple of John the apostle; but a doubt is cast on the correctness of this statement by Eusebius.* This is certain, that he knew Aristion and John the Presbyter, two immediate disciples of Jesus, who probably formed a part of a company of apostles and their followers who left Palestine for Asia Minor about A.D. 67, on the outbreak of the Jewish war. In the passages which Eusebius has preserved from Papias, he speaks only of Mark and Matthew. The silence of Eusebius, however, as to any mention of Luke

¹ Keim, "Celsus' Wahres Wort," p. 273.

² See the summaries of the work of Celsus, by Doddridge and Leland, in Lardner's "Credibility," etc., ii. 27, seq., and the work of Keim, as above.

³ Origen (Adv. Cel., ii. 74) says: "Now, we have proved that many foolish assertions, opposed to the narratives of our Gospels, occur in the statements of the Jew" [in Celsus], etc. But these "foolish assertions," as an inspection of the previous portion of Origen's work demonstrates, are comments on the Gospel history, not pretending to come from any Gospels.

⁴ p. 230.

⁶ Irenæus, l. c.

⁸ Eusebius, l. c.

⁵ Adv. Hær., v. 33, 4.

⁷ Eusebius, H. E., iii, 30.

⁹ Ibid.

and John by Papias has been demonstrated not to imply in the least that these Gospels were not referred to and used by him.' The avowed purpose of Eusebius in these notices, and his practice in other similar cases, would not lead us to expect any allusion to what Papias might say of the other Gospels, unless it were something new or of special interest. Now, Papias was informed by John the Presbyter, a contemporary of the apostle of the same name at Ephesus, that Mark was the interpreter of Peter, and wrote down accurately what he heard Peter relate of the sayings and doings of Jesus. The same statement respecting the relation of Mark to Peter, and the origin of the second Gospel, is made by Clement of Alexandria, Irenæus, and Tertullian.4 It was the undisputed belief of the ancient church. It is borne out by the internal traits of Mark's Gospel. It would seem as if there could be no doubt in regard to the book of which Papias is speaking. Yet it has been maintained by some that a primitive Mark, of which the Gospel of the canon is an expansion, is the work referred to. Most of these critics, to be sure, including Professor Holtzmann, would make the primitive Gospel embrace the main parts of our Mark. On what is this theory founded? First, on the statement in Papias that Mark, tho he omitted nothing that he heard, but reported it accurately, was precluded from recording "in order" (ἐν τάξει) the matter thus derived from the oral addresses of Peter. this remark is, no doubt, founded on a comparison of Mark with Matthew, where the savings of Christ are often differently disposed; or with Luke, who specially aimed at an orderly arrangement; or, as Bishop Lightfoot thinks, with John, where the sequence of events is more carefully preserved.6 It may be nothing more than a subjective impression of Papias or of his informant. There is no sign that either Papias himself, or Eusebius, or Clement, or Irenæus, or any other ancient writer, had heard of any other book by Mark than our second Gospel. It is morally impossible that any other Mark could have existed

¹ See Lightfoot, Contemporary Review, Jan. 1875.

² Eusebius, H. E., ii. 15. ³ Irenæus, Adv. Hær., iii. 10, 6.

⁴ Adv. Marc., iv. 5. ⁵ See Weiss, "Marcusevangelium," Einl., p. 2.

⁶ Contemporary Review, Oct. 1875. "Per ordinem profitetur," says the Muratorian canon, after referring to Mark in terms like those used by Papias.

in the time of Papias and Polycarp, and have been silently superseded by the Gospel of the canon without any knowledge of the fact reaching Irenæus and his contemporaries. second reason given for the conjecture respecting an earlier Gospel of Mark is founded on a certain hypothesis as to the relation of the synoptical Gospels to one another, and to the authorship of the first of them. It is assumed by the critics of whom we are speaking that Matthew's authorship extended only to the compilation of the discourses of Jesus, and that the narrative portion of his Gospel is from another hand. states that "Matthew wrote the oracles $(\tau \alpha \lambda \acute{o} \gamma \iota \alpha)$ in the Hebrew tongue, and every one interpreted them as he could." It is assumed that the narrative portion of the first Gospel is mainly derived from Mark; and then, from the fact that, by way of exception, in certain passages Matthew's Gospel appears to be the more original of the two, it is inferred that the corresponding passages in the second Gospel are of a later date than the body of its contents. But learned writers, such as Professor Weiss, who give the restricted sense to the term Logia as designating the discourses of Jesus, still maintain with reason that, even on this interpretation of the term, narrative matter was, to some degree, associated by the apostle Matthew with his record of the sayings of Jesus. The theory of a primitive Mark is thus wholly gratuitous, even on the general ground taken by the critics in question respecting the original work of Matthew. But the confident assertion of so many German critics since Schleiermacher, that the Logia of Papias means "discourses" simply—things said, to the exclusion of things done, by Jesus is not proved either on philological or other grounds.² There is no proof that any writer of the second century made the distinction between a Matthew composed of discourses alone and the Gospel in its later form. There is no reason to doubt that Papias intended to give an account of the composition of the Gospel in its present form.

We cannot enter here into the perplexed question suggested by the resemblances and differences of the first three Gospels. Most of the English critics attach the principal weight, in solv-

¹ See his "Matthäusevangelium," Einl., p. 17 seq.

² See Bishop Lightfoot's remarks, Contemporary Review, 1875, p. 399, seq.

ing the problem, to the influence of an oral tradition, early crystallized in a somewhat definite form, through the intercourse of the apostles with one another, and the instruction given by them to their converts.¹ Most of the German scholars consider the supposition of an interdependence of the synoptical evangelists indispensable to the solution of the phenomena. This is the growing conviction even among English scholars.² And the more prevalent opinion is that Mark is the oldest of the Gospels. That Mark could not have followed the first Gospel appears to be certain. That Mark did not copy Luke is equally plain.³

The question of the original form of the Gospel of Matthew is one of special interest in the present discussion. It is said by Papias—whether or not upon the authority of John the Presbyter we cannot surely affirm—that Matthew wrote in Hebrew. This is the common belief of the early ecclesiastical writers. There are reasons which persuade not a few judicious scholars that in connection with the early translation, or transfer, of the Hebrew Gospel more or less additional matter, mainly of a narrative sort, was introduced into the work. The supplementary matter, however, by whomsoever it was added, did not affect the proper identity of the book, which continued to be attributed to Matthew as its author. The transfer into the Greek, or its present form, was anterior to the time of Papias. As he implies in his statement (where the aorist form of the verb is used), it was no longer necessary to translate it.

Altho the statements cited by Eusebius from Papias relate not to Luke, but to Mark and Matthew, it happens that there is nearly contemporary evidence of striking value from another source. Marcion came from Asia Minor to Rome about A.D. 140. His heresy involved a rejection of the apostles

¹ See (e.g.) Westcott's "Introduction to the Study of the Gospels," p. 212, seq.

² See Dr. E. A. Abbot's art. "Gospels," Enc. Brit., vol. x.

³ Cf. Matt. viii. 28-34 with Mark v. 1-21, Luke viii. 26-40; Matt. xx. 29-34 with Mark x. 46-52, Luke xviii. 35-43, xix. 1.

⁴ In connection with the testimony of Papias to the first Gospel, it may be added that in the Epistle ascribed to Barnabas, which is not later than A.D. 120, a passage found in Matthew is introduced by the words "As it is written," which were usual in quoting from a sacred scripture (Barnabas iv. 14).

⁵ See Justin, Apol., i. 26, 58.

with the exception of Paul, for the reason that he deemed them tainted with Judaic error. The fathers who oppose Marcion describe him as having rejected the Gospels with the exception of Luke. He did not deny that the other Gospels were genuine productions of their reputed authors: there is no hint of this: but he selected Luke as his authority, he having been an associate of Paul, and made a Gospel for himself by cutting out of Luke's work passages which he considered incongruous with his doctrinal theories.1 That Marcion's Gospel was an abridgment of our Luke is now conceded on all hands, even by the author of "Supernatural Religion." Dr. Sanday has not only demonstrated this by a linguistic argument, but has proved by a comparison of texts that the Gospel of the canon must have been for some time in use, and have attained to a considerable circulation, before Marcion applied to it his pruning-knife.2 There is no reason to doubt that he took for his purpose a Gospel of established authority in the church.

But we have Luke's own unimpeachable testimony. In the prologue of the Gospel he states that his information was derived from the immediate disciples of Christ.3 Unless the author who collected and preserved such passages of the Saviour's teaching as the parables of the Prodigal Son and the Good Samaritan, and as the story of the Pharisee and the Publican, lied, he was an associate of immediate followers of Jesus. Moreover, in the Acts, which undoubtedly has a common authority with the Gospel, he distinctly discloses himself, tho in a perfectly artless and incidental way, as having been a companion of the apostle Paul in a part of his journeying. There is no other explanation of the passages in which the writer speaks in the first person plural,4 unless an intentional fraud is imputed to him; and this is the most unreasonable explanation of all. Had a later writer wished to cheat his readers into a belief that he had been an attendant of Paul, he would not have failed to make his pretension more prominent. There is the same consensus in the tradition respecting the

¹ Tertullian, De Præscript. Hæret., c. 38.

² "The Gospels in the Second Century," ch. viii. The priority of Luke to Marcion's Gospel is admitted in the 7th ed. of "Supernatural Religion."

⁸ Luke i. 2. ⁴ Acts xvi. 10-19, xx 5-xxviii, 31.

association of Luke with Paul that we find with regard to the connection of Mark with Peter.¹

The objection that was formerly made by the Tübingen school to the genuineness of the third Gospel and of the Acts, on the ground of an alleged misrepresentation, especially in the latter book, of the relations of the older apostles to Paul, and of the Jewish to the Gentile branches of the church in the apostolic age, is swept away by the admission of independent critics that the Tübingen premise was without foundation in fact, and that the representation of Luke, in his record of the council (Acts xv.), and elsewhere, is in substantial accordance with the statements of Paul in the Galatians, and in his other Epistles.²

The evidence, the most important points of which have been sketched above, proves the genuineness of the first three Gospels. We have, however, within these Gospels themselves proofs of their early date of a convincing character. The most important of these internal evidences is the form of the eschatological discourse of Jesus. In Matthew especially, but also in the other synoptical Gospels, the second advent of Christ is set in apparent juxtaposition with the destruction of Jerusalem.3 There is not room here to review the various attempts of exegetes to remove the difficulties which this circumstance involves. The reader in interpreting these passages may adopt whatever hypothesis pleases him best. I will only remark that Jesus is proved not to have foretold his advent to judgment as an event to follow immediately upon the destruction of Jerusalem, by the Parable of the Marriage Feast, in Matt. xxii., where the mission to the heathen (vs. 10) is pictured as subsequent to the downfall and burning of that city. The same thing is decisively proved, also, by the Parable of the Householder (Matt. xxi. 33-42), where, after the destruction of the husbandmen, the vineyard is to be "delivered to other husbandmen;" to which it is added: "The kingdom of God shall be taken from you and given to a nation bringing forth the fruits thereof" (vs. 43). The

¹ Irenæus, Adv. Hær., iii. I, I; Tertullian, Adv. Marc., iv. 2. Cf. Ep. to Philemon, vs. 24; Col. iv. 14; 2 Tim. iv. 11.

² See Mangold in Bleek's Einl. in d. N. T., ed. 3, p. 390, n.; and especially Keim, "Aus dem Urchristenthum," pp. 64-89.

³ Matt. xxiv. 29, 34; Mark xiii. 19, 24, 30; Luke xxi. 32.

same conclusion is likewise deducible from the parables of the Mustard Seed and the Leaven, not to speak of other teaching of like purport. At the same time it will not be questioned by the soundest interpreters that, had any considerable interval elapsed between the capture of Jerusalem by the Romans in the year 70, and the composition of the synoptical Gospels, other phraseology would have been used by the evangelists, or at least some explanation thrown in, respecting the chronological relation of that event to the advent to judgment. We have therefore, in the passages referred to, satisfactory evidence that the first three Gospels were in existence, if not before, at least very soon after, A.D. 70. And the same reasoning proves that they existed in their present form and compass. The eschatological discourse in Matthew, for example, is homogeneous in style with the rest of the Gospel; and in any revision later than the date given above these perplexing statements would not have been left unaltered or unexplained.

A few words may be said upon the integrity of the Gospels. The guarantee of this is the essential agreement of the existing manuscripts, which would not be possible had the early texts been tampered with. Renan speaks of the little authority which the texts of the Gospels had for about a "hundred years:" in his first edition he wrote "a hundred and fifty." "They had no scruple," he adds, "about inserting in them paragraphs combining the narratives diversely, or completing some by others. The poor man who has but one book wishes it to contain everything that comes home to his heart. They lent these little rolls to one another. Every one transcribed on the margin of his copy the words, the parables, which he found elsewhere, and which moved him." These statements are utterly misleading. There is not the slightest proof that the Gospels were treated with this license. Had they been so treated, the differences consequent upon it must have perpetuated themselves in the copies derived from the early texts. With regard to Renan's solitary example of an insertion of any length, John viii. I-IIhe might have added one more, Mark xvi. 9-20-these passages are doubted, or rejected from the text by scholars, mainly

¹ Vie de Jésus, 13^{me} ed., p. lv.

on this very ground of a lack of manuscript attestation. No doubt here and there a marginal annotation, made for liturgical purposes or from some other innocent motive, has crept into the text. It is the business of textual criticism to detect these erroneous readings. Renan's assertions, as far as they go beyond this, are groundless.' The statement that the early Christians felt no interest in keeping the text of the Gospels intact is a pure fiction.

In these remarks we have turned away for a time from the special consideration of the Fourth Gospel. The more particular discussion of its origin must be reserved for another article.

GEORGE P. FISHER.

¹ Not more groundless, however, than other statements in the same connection. "They attached little importance," says Renan, "to these writings"-Gospels-" and the collectors (conservateurs), such as Papias, in the first half of the second century, still preferred to them the oral tradition." On the contrary, the work of Papias was itself a commentary on the Gospels, or on portions of them. In his remark about his esteem of oral tradition, he is not comparing the Gospels with other sources of information, but refers to anecdotes respecting them and their authors, which he interwove in his comments, and which he preferred to derive from oral sources. See Eusebius, H. E., iii. 39. Renan's reference to Irenæus, Adv. Hær., iii. cc. 2, 3, proves nothing to his purpose. It contains no hint of a preference of tradition to the Gospels. Renan further says: "Besides the Gospels that have reached us, there were others"—in his first edition he wrote "a multitude of others"—" pretending equally to represent the tradition of eye-witnesses." How little warrant there is for this statement respecting apocryphal gospels, and how false is the impression which it conveys, has been shown in preceding pages of this article. The "many" writers to whom Luke refers in his prologue were soon superseded and passed away. were left no competitors with the Gospels of the canon, and none arose.

THE STUDY OF ANGLO-SAXON.

T is evident even to the casual observer that there is a general revival of interest in the revival of interest in the subject of Higher Education in America, and, moreover, evident that this is marked by a special revival of interest in all that pertains to the department of This awakening is, to our mind, a most natural and healthful one, the timely product of many causes, mental and moral, and fraught with the happiest results as well to liberal culture in general as to that which is specifically English. the present, at least, the main energy of this quickening seems to be in the province of English philology, induced partly by a higher appreciation of its inherent worthfulness as a study, and partly by its manifest and practical relations to the various languages with which it is classified. English literature has ever had and will ever have a goodly number of enthusiastic students. There is enough upon the very surface of it to attract the most indifferent mind. It is somewhat otherwise with the study of the To the hasty glance of the discursive student it reveals few points of special interest, but if he can be induced to plod and delve in honest toil until he comes beneath the surface to its hidden wealth, then is he at once more than repaid for his effort, and all attempts to dissuade him from further inquiry Such plodders and delvers are rapidly multiplying. Those who have already discovered these mines of verbal wealth are repeating the intelligence to others and stimulating many scholarly minds to similar pursuits. There is, perhaps, no department of study which is at present more promising or eliciting more general inquiry than what Mr. Earle would call "the philology of the English tongue," a department in which every English-speaking person should take a genuine and growing

interest. Into this general awakening we would desire to enter and, to some extent if possible, deepen its intensity by calling the attention of American scholars to that particular portion of our language which is embraced in the term *Anglo-Saxon*.

I.

HISTORY OF THE STUDY.

The social and political changes in England consequent upon the Norman Conquest were of so radical a character as necessarily to involve in them equally radical changes in all that pertained to the national language and literature. The study of what Mr. Morley has happily termed "First English" was thus for a time prevented, it being held by some historians that it was a settled plan on the part of William the Conqueror to abolish the native speech from the realm. Tho this opinion, as conclusively shown by Palgrave and others, is not sustained by facts, it still remains true that, in the nature of things, the old classical Latin and the recent Norman French held rule throughout the island and left but little room for the cultivation of the mothertongue. Had not the native yeomanry, in spite of all disturbing influences, held on to their dear birthright with a truly heroic grasp, all traces of the old language would have forever vanished with the entrance of the French invaders. The period between the close of the Anglo-Saxon Chronicle in 1154 and the opening of our national literary era in the days of Chaucer may well be called the dark ages of our language, when, indeed, the unwritten songs of the people may be said to have been the only litera-Here and there, however, in the secrecy of monastic convents were found little groups of faithful students preserving and transcribing the manuscripts that had escaped the ravages of the Danes and the civil wars, while such loyal souls as Orm and Layamon and Langlande, tho writing in the Semi-Saxon, so carefully omitted terms of foreign origin that their presence is scarcely visible. "Thanks be to God," writes William L'Isle, "that he who conquered the land could not so conquer the language but that in memory of our fathers it has been preserved in common lectures." Between Chaucer and Elizabeth darkness reigned over all still deeper than before; and tho the fate

of the Norman French was already sealed and the English fully established as the national tongue, still the mind of the time was sadly disturbed by the civil Wars of the Roses, and the cause of English philology, as of English letters, must await in patience the genial influence of public order. Here we meet the most interesting historical fact that the study of Anglo-Saxon, as of English in general, marks the period of its healthy revival at the great Reformation of the sixteenth century in the direct interests In 1523 John Leland, the King's of evangelical Christianity. Antiquary, is living at Oxford in the study of the old records, said by Petherham to have been "the first of the reformed faith who possessed a knowledge of the Saxon." At a later period we find Parker, Archbishop of Canterbury, collecting with tireless industry all that pertained to the primitive speech and people, while it is never to be forgotten that he is making these special efforts toward enkindling new interest in Anglo-Saxon learning only, at length, to further the cause of the Protestant Reformation against Romanism. Into the two great questions of the time—the reading of the Scriptures in the vulgar tongue and the presence of Christ in the Eucharist—he entered with all his zeal and learning. As to the latter of these topics, he took up the argument at the very point where Aelfric, the Saxon homilist. had left it, suggesting to us the important fact that the Anglo-Saxons, long before the Conquest, had clearly anticipated the doctrine of the reformers on this point, and had ever protested against the carnal views of the Papacy. "We receive Christ's body spiritually—gâstlîce," writes Aelfric. "He is called head, typically." With ever-deepening zeal the work of collecting and copying is now conducted under the guidance of Parker. Many of the clergy under his prelatical care catch the inspiration. Even the civil authorities are enlisted in the service. A circular letter from the Privy Council of the realm notifies all citizens as to the wishes of the government, and the Oxford, Cambridge, and London libraries testify to-day to the thoroughness with which that work was carried on. Following Parker, we meet with Joscelin, the publisher of Aelfric's homily and the author of its able preface; with Nowell, the compiler of a Saxon-English Dictionary; and with Fox, the martyrologist, editor of the Anglo-Saxon Gospels, who in a characteristic preface says that the

gospels are given in Saxon to show that "the religion taught at this present is no new thing lately begun, but rather a reduction of the church to its pristine state of old conformity." Then follow the names of Lambarde and Stowe and many others-all intent in carrying out by pen and voice, in school and cloister. the magnificent plans of the archbishop. At this point, for reasons partly historical and partly moral, we note in the study of the vernacular a temporary decline, extending through the sixteenth and the beginning of the seventeenth century, until, by the assiduous efforts of Camden and L'Isle, the work is fully renewed. Sir Henry Spelman now established an Anglo-Saxon Lectureship at Cambridge, because, as his biographer Gibson tells us, "He had found the excellent use of that language in the whole course of his studies and much lamented the neglect of it, which was so general that he did not then know one man who perfectly understood it." At his own expense, he published an Anglo-Saxon Glossary, and engaged, directly and indirectly, in the preparation of other works. It was through Whelock, appointed by Spelman, the first Anglo-Saxon Professor in England, that we have Alfred's Bede, the Anglo-Saxon Laws, and the Chronicle. At this point the name of Francis Junius is prominent—a German by birth, and an Englishman in his deep devotion to the land and language. To him we owe the publication of Cædmon's Paraphrase in 1655, the original manuscript of which was presented by him to the Bodleian at Oxford. also published the gospels, and by this and other work done, with a zealous English spirit, brought every lover of the old language under personal obligations to him, and served to show the close relations between the Saxon and the German. The chair of Anglo-Saxon at Cambridge now being vacant by the death of Whelock, it was worthily filled by Somner, whose best work therein was the preparation of an Anglo-Saxon Dictionary in 1659—practically the first in the language—whose influence just at this time upon the better study of the ancient tongue was beyond estimate. There was now a scholarly basis on which such a study could be built up, the sufficient proof of which we have in the increasing number of students, both in England and on the Continent, who devoted themselves to it. appear Gibson's Chronicle, Rawlinson's Boethius, Thwaite's

Heptateuch—various helps by way of grammar and comment while in and through each appears a keener appreciation of all that was English in letter and spirit. Here belong the ceaseless labors of Hickes, of Wanley and the Elstobs, giving a new impulse to the century in which they lived, and by what they projected, as well as by what they accomplished, giving a stimulus to the study whose influence is still among us. Special reference should here be made to the marked interest which was ever manifested in these early studies by the English clergy. The invaluable work of Parker has been alluded to. The names of Archbishops Usher, Laud, Nicolson. and Gibson are to be added, collecting manuscripts, securing their transcription, personally soliciting funds and personally engaging in the work of publication. In 1750 the establishment by Rawlinson of an Anglo-Saxon Professorship at Oxford quickened the zeal already awakened, one of the sad or blessed conditions of the appointment being that the professor must be "a bachelor and single man." In 1755 appeared Dr. Johnson's English Dictionary, "a work," writes another, "which has done more to give a fixed character to the language than any book ever printed." However this may be, it is in point to remark that despite the author's personal love of Latinisms, it did at that time a most important work for Anglo-Saxon. It was a dictionary of the language in all its periods. The historical sketch of the language which is prefaced to it, with its timely selections from Anglo-Saxon authors as well as from Middle English, fixed the attention of students upon the historical continuity of the language. The younger men of London and the university towns now began to manifest a new zeal, and various methods were adopted by which to meet this growing demand. New editions of grammar, text, and lexicon were at hand. Treatises on the objects and importance of the study were widely circulated, while through the scholarly efforts of Lye and his fellowworkers larger and more practical results were ever being reached. The publication of Sharon Turner's History of the Anglo-Saxons, at the opening of the present century, marks another epoch in the study, the special object of the work being, as the author declares, "to revive a taste for the history and remains of our great ancestors."

The successive editions through which the work has passed bear witness alike to its intrinsic excellence and the lively interest awakened in the topics of which it treats. Here belong the scholarly labors of Conybeare; Bosworth's most valuable work on Anglo-Saxon Grammar; a new edition of Warton's English Poetry, in which the poetry of the Anglo-Saxons receives special and able discussion; Cardale's edition of Boethius; Fox's Menologium, and a most timely presentation of the doctrines of the Anglo-Saxon Church by Soames, especially valuable as a counter-argument to the Romish views of Lingard. Special zeal in Anglo-Saxon study is now visible among the scholars of the Continent. In 1812 there appeared Grimm's "Deutsche Grammatik," a work whose philological value to the English and German scholar alike is unspeakable in that the relations of the two languages to each other and their common relations to the Teutonic tongues are never lost sight of. At this period, also, were working those three celebrated Danish scholars to whom every Anglo-Saxon student must owe his large indebtedness-Thorkelin, Grundtvig, and Rask; the first two of whom were giving special attention to the study of Beowulf, while in 1817 Rask published his invaluable grammar, since made accessible to English students by the edition of Thorpe. In fine, the study of First English is now fully begun at home and abroad, and bids fair to receive at the hands of all educated men that attention of which it has so long been deserving and deprived. Societies are now formed for the special purpose of editing rare authors, and prosecute their responsible work with commendable zeal. To the interest thus newly awakened we are indebted for valuable editions of Cædmon, Beowulf, and the Codex Exoniensis; for the historical writings of Allen and Palgrave, and special help in the study of the language, among which Bosworth's Dictionary, published in 1838, holds the first place.

The point of interest that here arises is, what use has been made in the last quarter of a century of this large preparative work. In answering such a question, we revert at once to Germany and England. As far as the former nation is concerned, we may reason, à priori, that wheresoever scholarly patience is demanded, there she will take a prominent if not a leading part. It has been precisely so with reference to the study of

English philology. Disguise it as we may, it is not the most consoling reflection of the patriotic Englishmen and American that, as yet, the ablest researches into our vernacular are the product of Continental, if not indeed of German, scholarship. The brothers Grimm and Schlegel: Bopp and Koch: Helfenstein and Maetzner; Heyne of Halle; and, first among all, Grein of Marburg—these men have had no successful competitors on English soil, either in the general province of Teutonic philology or the narrower one of English. That Germany is to hold this imperial place in the wide province is not to be doubted. That she is to hold it in the more limited one may be an open question. The loss sustained by Anglo-Saxon study in the recent death of Dr. Grein is irreparable. As in his "Bibliothek der Angelsachsischen Poesie" we have the best work extant on this subject, so in his "Bibliothek der Angelsachsischen Prosa," on which he was working at the time of his death, we would have had the best work in that province. May we not hope that some one of his able colleagues may take up this work at the point where he left it, and complete for us this much-needed collection of our earliest classical prose!

Still the spirit of this prince of scholars is abroad, and to any one who carefully examines the inner life of the German universities there will be plainly visible a deep and ever-growing interest in all that pertains to English antiquities in language and literature. The same remark is true, to a modified extent, of Denmark, the life-long labors of Rask and others being destined to bear a most abundant harvest. As far as the Continent is concerned, we cannot find, nor do we expect to find, outside of Germany and the Scandinavian realm, any special devotion to the study of primitive English. Crossing the Channel to England, the question before us assumes peculiar interest. Allusion has already been made to the founding of Anglo-Saxon Professorships in Oxford and Cambridge, and the newly-awakened interest consequent therein. Years of fragmentary work passed on, however, before the study of our native tongue was placed upon a proper basis. While, on the one hand, the universities and higher schools of the British Isles have been deficient in carrying on that noble work transmitted to them by earlier scholars still, it must be noted with pleasure that the last decade

marks a more promising era in this particular. Eccleston in his "Introduction to English Antiquities" mentions no less than thirty-seven societies having more or less to do with collecting and editing rare English works. It is safe to say that no nobler band of scholars can be found in any country than that which has existed in England for the last few years devoutly engaged in the revision and circulation of early works. The mere mention of the names of Ellis, Skeat, Earle, Kemble, Thorpe, Arnold, Palgrave, Wright, Morris, Sweet, and Bosworth is enough to confirm the position that the study of our birth-tongue is upon a safe and promising basis, and may at the close of the present century have as leading a place in British schools and British thought as its most ardent admirers could have desired.

Something of this spirit is visible even in America, where the study of Anglo-Saxon dates its origin in the University of Virginia in 1818, under the personal influence of Jefferson, who there pleads the "necessity of making it a regular branch of academic education." From that year to this its course has been variable. Without the awakening of a general interest in its study, however, among the educators of the land, it has always had a chosen few of faithful followers who, in a quiet and scholarly manner, have served to keep alive its interests and quicken it, within the The outlook at present in last decade, to fresher activity. America is a hopeful one. While in the three hundred and fifty colleges of our country comparatively few include its study, these few may be said to embrace most of our leading institutions, while a goodly number of others are favorably discussing its introduction. Most valuable service has been done for us of late by Professors Shute and Welling, Carpenter and Corson, while it is quite impossible for any lover of Anglo-Saxon to express his indebtedness to the scholarly and inspiring labors of Prof. March of Lafavette. He is the worthy father of the study among us, and despite the exceptions taken by Prof. Hart, his "Grammar of the Anglo-Saxon Language" has no equal in this country or in Europe as a manual for the advanced student of the language, both in its inherent nature and its vital relations to Teutonic and Indo-European speech. In addition to these special workers, it is to be stated that many of our most popular educators, poets, and statesmen, as Child and Longfellow and

George P. Marsh, are doing potent work in this direction. With such a grammatical basis laid for us, with all the vast results of previous times before us, the great and only need that now exists is the multiplication of the best Anglo-Saxon authors in such editions, as to size, type, vocabulary, notes, and cost, that they may be easily accessible to the student and helpful to the instructor. This need being met, the way is fully opened to the largest results, and an intelligent knowledge of our earlier philology assured to every aspiring student. In short, the history of this study, as that of so many others, is one of light and shade, and tho the darkness has too long and too deeply ruled, we can already discern the tokens of the morning. The morning has, indeed, already opened into day.

II.

CLAIMS OF THE STUDY UPON AMERICAN COLLEGES.

Passing from this brief historical survey, indicating a substantial progress, we come to a far more important part of our subject—the claims of this study upon the thoughtful attention of American educators. In answering the question as to what these claims specifically are, we may reduce them to three.

1. The Critical Study of Modern English demands it,—such a study as is outlined in Prof. March's suggestive treatise, "Method of Philological Study of the English Language." By a critical study of English we mean a knowledge of its history as a language; of its primitive and derivative forms; the force and richness of its synonyms; the copiousness of its vocabulary; the nature and number of its word-changes, with the causes of such change; its idiomatic words and phrases; the laws of its structure; its literary and ethical power; the relation of its words to the thought and character behind them; its gains and its losses; its elements and governing principles-in a word, all that is meant by the thorough and comprehensive grasp of the mind as applied to language—an order and quality of study so sharply contrasted with the prevailing one among us as to demand most emphatic statement. If such, then, be the meaning of the term, we are certainly justified in reasoning here à priori, from the general law of historical sequence, that, this critical study being adopted, we are carried back to the earliest periods of our language. It is certainly a safe and eminently natural plan, applicable to all spheres of study, to trace our way back from present results to the causes of them, and not to rest content until we discover in these rude beginnings the "promise and potency" of all that has followed. The student of modern philosophy rests not this side of Thales and the Greek school. The modern scientist goes back to the days of the inventive Roger Bacon; and the student of the Romance tongues, to their origin in the old Latin. Such a method is the only safe, satisfactory, and scholarly one, on the basis of which all that advantage is reaped which comes to any study by keeping up the line of its historical order—a method especially demanded in the study before us, inasmuch as the most of these elements which make up the critical study of Modern English lie far back of the present in the older periods of the language. The critical study needs the historical study as furnishing its groundwork, province, and material. Prof. March, in the Preface to his Reader, very tersely puts this whole subject in a kind of compact syllogism, as he says: "It seems to be agreed that every English scholar ought to have some scholarly knowledge of the English language." (The study of the Anglo-Saxon affords this scholarly knowledge.) "Then every English scholar ought to study Anglo-Saxon." In which syllogism it is noticeable that the author has suppressed the minor premiss, taking for granted as true what we are here aiming to confirm.

As far as the major premiss of this syllogism is concerned, exception would seem to be taken to the unqualified statement of the author by the prevalence of that superficial method in the study of English philology to which reference has been made. How few, it may be said, have any desire for this thorough mastery of their language, if so be the current needs of life are met without it! It is to be borne in mind, however, that we are now speaking of the claims of this study upon our highest institutions, and tho such a remark might be of force from the lips of the uneducated masses, it could scarcely be so regarded if made by the cultured. "If we mistake not," writes an English critic, "the day is not far distant when it will be consid-

ered disgraceful to a man who makes the slightest pretensions to scholarship to be ignorant, as multitudes now are, of the history and structure of the English tongue, and above all of the precise relation of Modern English to that ancient dialect of the great Teutonic family (the Anglo-Saxon) which has ever been and still is incomparably the most important element in its composition." In theory, however, we presume that no student of the English language would gainsay the opinion expressed by March, and the point we are pressing is that if such a concession be ever theoretically made, the truth of the statement made in the minor premiss may easily be shown—if in no other way, then by casting the burden of proof upon him who denies it, leaving him the unenviable task of showing how such a critical knowledge of Modern English can be obtained by any other method. Herein lies a large part of the secret of German students in English philology, bringing to bear upon it the critical method, as upon all they attempt, and thus forcing the English nation itself to sit at their feet to learn its own ver-English grammar, most especially, has been studied in Germany from the scientific standpoint, with constant reference to primitive principles and forms. Hence, such works as Koch's "Historische Grammatik" and Maetzner's "Englische Grammatik" have no parallels in England. It is, in this connection, justly remarked by Morris that "the unsatisfactory state of most of our English Grammars (Dr. Latham's excepted) is due to the unwillingness of their writers to avail themselves of the help afforded in our early literature." As already intimated, however, English scholars are fast approaching the German models, as in the works of Latham, Farrar, Morris, and others, while reference should be made to a most valuable little manual lately published in America by Prof. Gilmore of Rochester, "Outlines of the Art of Expression," written, as the author states, "from a logical and The special excellence of the volume is historical standpoint." that the successive forms and changes of English grammar are traced directly back to their Anglo-Saxon origin, so that when the student has finished the treatise, he has a knowledge of our grammar in its unity. If, then, such a method is the one demanded, we are driven, perforce as educators and students to the era of First English. The relation of present to past, of

produce to principle, holds here as elsewhere, and the very first thing to be done by the critical student of Modern English is to fortify himself in the knowledge of the Saxon, working his way from that point downward through Middle English to present forms. "The ground of our own," says Camden, "appertaineth to the old Saxon."

2. Its Practical Utility as related to Modern English demands it.

We are not surprised to find that Dr. Ingram, in entering upon his duties as Professor of Anglo-Saxon at Oxford in 1807, deemed it of the very first importance to devote his inaugural to a discussion of the Utility of the Study. In like manner Dr. Silver, in 1822, developed to the rising scholars of England the special subject of Anglo-Saxon study. In reaching a true conclusion on this point, the most satisfactory thing to be determined is, to what extent the element of Anglo-Saxon enters into the diction and general style of Modern English—what is the probable proportion of those earliest terms still in use among us, and what is the intrinsic value of such terms.

(A) Number of Words.

This is a matter, it would seem, of actual counting—the arithmetic of the subject; and if an absolutely correct result were demanded, such an estimate must be made. This, however, is needless, and whatever conclusion is reached, it must be approximate only.

In such an enumeration, one or two principles are to be borne in mind.

(a) We are to remember that altho many classes of words, as prepositions, conjunctions, and kindred orders derived from the Saxon, must occur much oftener than others, and thus be frequently repeated in the same paragraph, still such repetition is not always what the Bible would call "vain," but adds most important emphasis to the sense. They are used often, as has been suggested, "only because we cannot help it." In the very nature of the language, they must occur again and again, and tho, in any close computation, they are not to be regarded as vital as words entirely new, on the other hand they

are not to be counted out of the final result as zeros. The question now in hand is simply one of number, irrespective of the fact as to whether they are new or duplicates of former words, these very words being used in such a wide variety of relations that they often have the practical value of original terms. This, we may remark, is a principle utterly ignored by Dr. Weisse in his recent work on our language.

(b) We are further to keep in view the important point that it is from an examination of our literature and current speech, rather than our lexicons, that we are to come to right results on this subject.

On the basis thus established careful computations have been made, most especially by Trench and Turner of England, and by Marsh and De Mille of our own country, keeping in mind that the modern English as composite may be said to trace its different elements mainly to the Anglo-Saxon, Latin, and French, other portions being derived from Greek and various tongues - Semitic and Indo-Germanic. Archbishop Trench makes the following statement: "Supposing the English language to be divided into a hundred parts; of these, sixty would be Saxon; thirty would be Latin, including the Latin which has come to us through the French." The remaining ten parts would be found in the sources indicated. With this result the estimates of George P. Marsh substantially agree. Prof. De Mille, in his recent excellent treatise upon the "Elements of Rhetoric," presents a series of conclusions in keeping with the conclusions of the authors mentioned.

Alluding to the relative proportion of native terms in the different divisions of our literature, he gives the following table:

The English Bible	93	per	cent.
" "Prayer-Book	87	"	"
Poetry	88	66	"
Prose Fiction	87	"	44
Essays	78	"	44
Oratory	76	"	"
History	72	"	"

It is to be noted that this tabular statement represents the leading writers and works in all the main branches of our litera-

ture, sacred and secular. We find here an average of 83 per cent—somewhat less than the result reached by Turner, but much larger than that given by Marsh or Trench. As far as our personal opinion and present purpose are concerned, we are quite willing to accept the limit of these estimates, or even to descend still lower and place the proportion of Saxon in Modern English at 50 per cent—the argument from this fact to the necessity of the study of Saxon being too manifest to need further emphasis.

The mere number of native terms in present use is, however, by far the least important element in the question before us, and has, as we believe, been unduly pressed by recent critics.

As to these words, therefore, we hasten to note, in the second place—

(B) Their Character.

In this view of the case we are quite content to rest the whole subject.

- (a) Modern English grammar is mainly Anglo-Saxon—the parts of speech, with their various sub-classes; the remnants of the old inflectional system, as seen in noun, adjective, pronoun, and verb; idiomatic words and phrases; peculiarities of structure apart from idiom, and all that pertains to the syntactical framework of a language.
- (b) The great majority of words descriptive of domestic and social life are Saxon—words expressive of the deepest, purest, and tenderest emotions of the soul, connected with our earliest and dearest experiences, and which thereby so weave themselves into the texture of our after-life as to live with us and in us while life lasts. What we might call the language of the heart and the home is thus described.
- (c) Most of the names of the visible objects in nature and human life are from the same source—those of the heavenly bodies; of the agents of nature; of the parts of a landscape; of the productions of the earth; of the varied phases of sentient being; of the seasons (autumn excepted); of the elements (air excepted); and of the divisions of day and night.
 - (d) The great majority of what we may term the practical in

distinction from the technical diction of life is Saxon, and there is no sphere of diction in which the essential excellence of the earlier speech is more visibly seen. What, indeed, are our abstract professional words in comparison with the homely, common talk of the common people! Hence, we find that the speech of the shop, the counting-room, the farm, the sea, the market, the street, the kitchen, the nursery, the church, is nearly all native, full to the brim of the olden spirit, and destined still to do what it did in Norman and Danish days-preserve the mother-tongue in its pureness against all corrupting influence. It is one of the vital errors of Dr. Weisse's imposing work on the "English Language," that he speaks loosely and contemptuously of what he terms "those insignificant particles and words of primary necessity," when these are, after all, the very words which "come home to men's business and bosoms," and must ever rule the world. Would that we prized more highly our words of "primary necessity," and gave less time to the coining of terms for whose use there was no special need, save in the pleasing of a false pride and a false taste!

With such a survey as this before us, we see how narrow is the area that is left to be covered by foreign terms—valuable in their place, but not for one moment to be compared to that broader area of folk-speech in which the common business of this "working-day world" is done. The intensely practical character of our earlier language is thus manifest, and so manifest that it is not optional with us, but binding upon us, henceforth to give to this language a larger place and function in our culture. In the light of these facts, we are not surprised to find that those books which have been the most widely read and loved by the English people have been steeped in this early In this respect the educating influence of our English Bible, of "Pilgrim's Progress," and of "Robinson Crusoe" cannot be computed. It is for this reason that the lyric and descriptive poetry of our language has the charm that it has to the common mind, and that our true fiction still continues to absorb half of our writers and readers. It is by way of eminence the language of Chaucer and Spenser; of Cowper and Wordsworth; of Burns and Bunyan; of Scott and Dickens; of Irving and Hawthorne. A comparison of the "Douay" Bible of the Romish Church

with our Protestant English Bible will mark the contrast betweem English mixed and English "undefiled." That sensitive clergyman who was grieved at the "vulgarity" of Bunyan, and prepared a version of the allegory "for the use of the aristocracy," had his childish folly fitly rebuked in the shelving of his treatise on the upper tier. If the character of our diction as Saxon be what it appears to be, and the relation of the lower classes in society to the higher be what it is, then it becomes a matter of the utmost moment for the educated orders of our time to speak the tongue their fellows speak, and, as educated, to know the story of its origin and the grounds of its present power. Had such authors as Taylor and Browne, Burton and Cudworth, Johnson and Gibbon, brought themselves more fully into sympathy with the common mind, their work in English literature would have been more attractive and valuable than it is.

But in speaking of the character of Anglo-Saxon words as related to Modern English we must not forget the elements of good that are here involved, quite apart from any of those outward benefits already mentioned. Any careful student of this early element in our present speech will mark its monosyllabic brevity-equal to the laconic language of Sparta; its great simplicity and directness, calling things by their right names and driving right onward to the point; its solid, substantial nature, which has done much to mold the modern English mind; its manly vigor, which has enabled it to survive what no other spoken tongue has survived in the line of destructive forces; and, last of all, its sterling moral purity, to which the uniform moral tone of English letters is largely due. Such a growth of unnatural writing as we find in the days of Elizabeth, under the name of Euphuism, or in the days of Cowley and Donne, under the name of the Metaphysical School, would have been as impossible to the language as to the character of the early people. Whatever else we find or fail to find, we find that the Anglo-Saxon nature was honest and straight-There is thus a singular absence in this early speech of cant and pedantry. "Beô paet pû eart," is the wise advice of that former time which they themselves followed and expected others to follow, and this is one of the points in which we are yet to sit at the feet of our fathers for kindly instruction

—to speak what we speak and do what we do in a natural and manly manner. Had the study of the Anglo-Saxon speech and people no other claim upon us, this alone would be sufficient.

3. Its influence in deepening and maintaining the national English spirit demands its study.

"The love of our own language, what is it," asks Trench, "but the love of our country expressing itself in one particular direction?" If this be so, the measure of the one is the measure of the other. Race and speech have been so joined as not to be severed in their interests without serious results. ern English and American history has no vital connection with the history of England back of Chaucer and the Conquest, and if modern England and America, with their prosperous governments, have no vital relation to Old England and Saxon England, then indeed the point before us has no important bearings. If, however, the varied effects of the present in church and state are traceable through a series of causes to the earliest times, and something of the gratitude of Great Britain and America to-day is due to their Saxon ancestry, then it is a matter of the first moment to become familiar with the speech in which these fathers taught and wrote, and spoke and acted, if so be we may come into closer contact with their innermost spirit. It is not our purpose here to enter into any detailed review of our indebtedness as English-speaking people to the Anglo-Saxons, however inviting such a survey might be, and however important to multitudes of those who have never imagined such an indebtedness to exist. Much of this work has been ably done by such historians as Turner, Kemble, Palgrave, Lappenberg, and Soames—a work, we may add, that lies rather in the province of history than in that of the study of language.

Special attention, however, should be called to a few particulars illustrating respectively the social, political, and literary obligations of England and America to their Saxon forefathers, and constituting thus a strong indirect argument for the present study of the primitive speech as a means of preserving the national spirit.

(a) The view which now prevails in modern English civilization as to the dignity, purity, and rights of womanhood is:

largely due, the Bible apart, to Saxon times—a particular which needs special emphasis in that such views were in so marked contrast with the general sentiment of the early nations. Fierce as the Saxons were by land and sea, coming as they did from pagan shores where barbarity so openly reigned, they still brought with them into Britain a true regard for womanly rank and virtue. With what prompt and severe punishment all violation of female honor was visited every reader of Saxon history is familiar. So searching and comprehensive was the code that the veriest menial was protected as well as the noble in the enjoyment of domestic peace. To that day and that people the thankful tribute of English and American womanhood is due.

(b) Much that is good in modern government as established in England and America is traceable to this same source. As far as the general truth of this statement is concerned, we may refer to the liberty-loving character of the old Goths of whom the Saxons and Angles formed a part. Montesquieu, in the "Spirit of Laws," thus confirms it: "What ought to recommend the Gothic race beyond every people upon earth is that they afforded the great resource to the liberty of Europe;" and it is in immediate connection with this statement that the study of Anglo-Saxon is urged by Bosworth, as fostering this very spirit of freedom transmittted through the early people as Gothic to the English It was this spirit which, crushed for the time at the Conquest, found its fitting expression in the Magna Charta of British rights. Looking at this point more specifically, we mark the merit of the Anglo-Saxon polity and the large variety of particulars in which it is still expressed, quite distinct from Norman elements, in the English Government of to-day. As to the rank, duties, and prerogatives of the king; as to the orders, character, and functions of the nobility; as to the Witenagemote, or Parliament, its membership and officers; and as to the presence and prominence of the popular element in government in these and many other respects it is a study fraught with the deepest interest to note how the constitutions and governments of the English-speaking nations of to-day were anticipated a thousand years ago in the splendid reign of Alfred the Great.

(c) Allusion has already been made to the moral tone of

English letters, at no period more manifest than in its earliest expression. Beginning with Cædmon's Paraphrase of Scripture, Anglo-Saxon literature was not only largely, but almost exclusively, moral in its temper, and so, to a great degree, in its subject-matter. Its authorship abounds in homilies, commentaries, and sacred biographies, giving character and ethical feature to all that follows.

The student of history is aware how early a wide departure was made by the Anglo-Saxon Church from the extreme doctrines of Romanism. Despite the adroit reasoning of Lingard on this subject, it still remains true that that early church was anti-Romish in faith, polity, and life. It is scarcely too much to say that just here were sown the seeds of Protestant evangelical Christianity. There were reformers before the Reformation, and the great revival of the sixteenth century must go back of Luther and Zwingle to Cædmon and Aelfric, and the disciples of these first times, for its true beginnings.

If, then, what we term the national English spirit is to be quickened and maintained, we must go back through the centuries to the origin of English things; and so vital is the bond between the character and institutions of a people and its native speech that we must make ourselves familiar with that speech, and through the channel thus opened drink in the spirit of the fathers. Modern Englishdom is not a creation out of nothing, but a gradual growth from earlier days and earlier things; and he who would enter into the full meaning of those periods must do it through the agency of the Saxon language. The historical study of our language, beginning with First English, might thus become a happy instrument of revealing to all English-speaking nations the unity of their origin, present interest, and temporal destiny.

The point which, in the previous pages, we have been aiming to prove and to impress is now, we trust, distinctly before us—capable of confirmation from a much larger variety of particulars, but sufficiently clear by what is already stated.

Taking into account the history of the study of Anglo-Saxon and its special claims upon us as to the critical study of Modern English, its practical value in present diction, and its rela-

tion to the maintenance of the historic national spirit, we are fully convinced that it should find an immediate and permanent place in all our courses of liberal culture; least of all should any collegiate student among us be denied the privilege and means of pursuing it.

We trust that the day is not far distant when in each of our leading colleges there will be a Chair of English Philology exclusively devoted to the interests of our own language. Thus will English be taught as thoroughly as the classics and the modern tongues. Thus will our graduates speak most effectively "in their own tongue wherein they were born," and the rapidly increasing demand for worthy teachers of English be fully met.

We revert, in closing, to the idea with which this paper opens —the promising outlook in America of all that pertains to the study of English, its language and literature. Every instructor in this wide department owes it to himself and to his pupils, as well as to the general temper of the time, to grasp the meaning of this movement in its fullest measure and cast himself most zealously into it, if so be our institutions may be redeemed from past reproach in this particular, and worthily fulfil the vocation to which they are called. In birth and history, in providential place and function, and in all our ambitions, we are English. Surely our birthright is not to be despised. May we not hope that among our graduates of the next ten years may be found the future philologers of the English language, worthily to compete with that increasing band of British and German youth who have already entered upon valid work in this direction! This is the call to which our rising scholars do well to give earnest and instant heed, and which, if obeyed, will lend a new attraction not only to philology itself, but to every phase and department of English study.

THEODORE W. HUNT.

THE ARGUMENT AGAINST PROTECTIVE TAXES.

HE most absurd assertion which can be put into language is that a thing (e.g., free trade) is true in theory but is false in practice. For, if free trade is not true in practice, something else, viz., restricted trade, is alleged to be true and beneficial in practice. It will therefore be a matter of scientific investigation to find out how restriction acts, what forces it brings into action, what are the laws of those forces, what are the conditions of successful restriction, etc. etc.—in short, to find out the theory and philosophy of restriction. The theory thus found will be "true" because deduced from observation and ratified by experi-But it was conceded, at the outset, that free trade is true in theory. Hence it would follow, if free trade is true in theory but not in practice, that two opposite and contradictory propositions about the same subject-matter could both be true at the same time. This is the height of absurdity. Any one, therefore, who makes this assertion is either guilty of very loose thinking, or else he seeks an escape, at all hazards, from rational conclusions against which he can no longer contend.

There remain two possible positions which a protectionist may assume:

I. He may boldly declare that there is a science of wealth based on restriction; that he can discover the principles of it and reduce them to a theory; that trade between countries is a mischievous thing, at least if it runs on parallels of latitude; that isolation and antagonism of nations is the law of nature upon which wealth and civilization depend; that there is therefore no universal science of wealth, but only a national science of wealth, and that this science, in its final analysis, is only a generalization from certain empirical maxims of economic policy. This is the

position of the dogmatic or philosophical protectionists, who seek to give a certain abstract and philosophical cast to their speculations. It is the position of the List-Carey school, whose "unscientific science and unhistorical history" (as Roscher called it) seems to impose with such weight on some people. It is a view of the matter which is especially cultivated now by the learned protectionists of Germany, and which issues in some of the most remarkable curiosities of economic literature which have ever been produced either by the learned or the unlearned.

2. The other ground which the protectionist may take is that protection does not increase wealth, but is, for some reason or other, expedient.

In taking up again now the effort to put into simple, brief, and comprehensive form the argument against protection, I will separate these two modes of defending protection and take them in order. It is obvious that the two positions are inconsistent with each other, and every one who is familiar with the history of this controversy knows that its fruitlessness has been due, in a large measure, to the ambiguities, false definitions, and confusion which have prevailed in it. It has been a constant phenomenon in the discussion that the expediency of protection, in spite of the harm done by it, has been argued, and then the general utility of protection has been assumed as resulting from the argument. I do not know of any disputant on the protectionist side who does not move from one to the other of these positions, as his convenience or the pressure of the argument may force him, or who does not confuse them with each other.

It will be noted also that my point of attack is protection under any form or in any degree, and not import duties or taxes on consumption. This distinction can perhaps best be brought out by examining one of the peculiar and whimsical notions which avail to keep people from actually examining the matter in issue, viz., the notion of "revenue tariff with incidental protection." The people who believe that this jingle of words has any meaning in it must believe that the same man in supplying his needs does it at the same time in two ways, by importing and by buying at home too. If A wants a ton of iron and imports it, he pays duties on it which go to the public treasury. Not a cent for this transaction goes to the American producer

of iron. This is why the American producer is so often heard to cry out in horror at the amount imported. If B wants a ton of iron and buys it at home, he pays the protective taxes to the home producer, and not a cent goes in revenue to the public treasury for that transaction. What incidental relation exists hetween these two transactions? They are independent and exclusive of each other. If we discard the empty formula of "revenue with incidental protection," we find that we are simply face to face with the problem of free trade vs. protection, or revenue vs. protection, as in the first place. Nothing has been done by this formula towards solving either of those problems. A only wanted one ton and took one way of getting it. only wanted one ton and took another way of getting it. question why either of them chose the course he did choose. and what the effects were on the interests of either of them, and on the welfare of the country, of the tax laws in question, remains still all before us. What is clear is only that protection and revenue are exclusive of each other. They do not overlap each other at all. The line between them is sharp and precise. and we can discuss the wisdom of protection entirely aside from the wisdom of raising revenue from customs duties. The latter question shall not therefore now be taken into account, and we confine our attention only to the former.

In this connection we may also dispose of another of the glib commonplaces by which people get rid of the trouble of thinking about the tariff controversy: that we have a large debt and therefore must have a high (protective) tariff. It is evident, since protection and revenue exclude each other, that not one cent which is paid in a protective tax goes into the public treasury or helps to pay either the principal or the interest of the debt, while, on the other hand, every cent paid in protective. taxes lessens the power of the citizen to pay revenue taxes for the discharge of the public burdens. Hence the fact that we have heavy public burdens is just the reason why we cannot afford to squander our means in paying taxes to our neighbors for carrying on (as they themselves allege) unproductive industries. The especial iniquity of the present tariff, in a political point of view, is that it was laid under the cover of war taxes, taking advantage of the popular ignorance of the relation between protection and revenue, and of the popular willingness to submit to taxation for the purpose of the war. To argue that we want protective taxes because we have a large debt to pay is like arguing that a man ought to squander his income in benevolence because his means are just now being strained by an expensive lawsuit.

Having disposed of these notions which interfere with the approach to the real merits of the question, we may consider first whether protection can increase the wealth of the country.

I. The problem of economic science is presented in the ratio between the efforts which men have to exert to supply their material needs and the amount and excellence of the food, clothing, lodging, furniture, fuel, etc., which they obtain. Political economy investigates the laws which govern this ratio so as to find out how we may determine the ratio as much as possible in Throwing aside all technicalities, the case is to find out how, for a given exertion and sacrifice, to get the maximum of material good. I maintain against any system of restriction whatsoever that it renders that ratio less favorable to men than it would be under freedom, taking the arts and sciences, the land and the population, as they are in the country where restriction is applied. Instead of increasing wealth, it is mathematically demonstrable that it lessens wealth, makes it harder to get a living and lowers the comfort of the population, and that it does this by taking away one man's earnings to give them to another. I mean to say that a man must work harder and longer to get a given amount of product under protection than under free trade, and I mean to say that this state of things is due to the statute law, which steps in and takes away part of his product and gives it to another man. The issue is purposely stated here without the use of any of the technical terms of political economy, because the simpler and homelier the language is the more correctly does it state the question, both in its economic and its political aspects, both in its scientific and in its popular significance, free from all admixture of either sentimental or pedantic The economic question about the tariff is: Does it enable the population of the country to command greater material good for a given effort? The political question about protection is: Does the statute enacted by the legislature alter the

distribution of property so that one man enjoys another man's earnings? Has the state a law in operation which enables one citizen to collect taxes of another? The scientific question about protection is: Does it lessen the ratio of effort and sacrifice to comfort and enjoyment? The popular question about protection is: Does it prevent me from supporting myself and family, by my labor, as well as I could do it if there were no protective taxes?

The philosophical protectionists at once reply that this is not the question, or at least not the whole of it. To them political economy is not an independent science. They are not willing to consider the question of wealth aside from other They want to embrace in the view what they call moral, political, social, æsthetical, and sentimental considera-Their instinct is perfectly correct when they oppose those operations of analysis and classification which would introduce clearness and precision into the discussion. of social science which has the most positive and mathematical character is the one against which they cannot stand. write no books on political economy, but always on social science, in order to keep the clear mixed with the unclear, the physical with the metaphysical, the positive with the arbitrary. They are eagerly followed by all the popular orators and writers on economic questions, and generally by those metaphysicians and students of other sciences who take part in sociological discussions, and almost always prove themselves the most reckless dogmatizers when they do so. The attraction of the a priori method, and of abstract and general propositions for ill-trained men, is well known, and, generally, in proportion as one is untrained in a particular science (whatever may be his status in others) will be his readiness to fly to a priori methods and to dogmas which are conveniently vague, loose, and broad, when he engages in the discussion of questions appertaining to the science in which he has not been trained.

Mr. Carey, for instance, filled his books with vague diatribes about "association." He thought to have found a great principle under this name. He wanted to break off all the natural ties and bonds of mankind in order to piece the parts together again on a plan of his own. He accordingly wrote big books on "social science," and he never reached the first conception of

the forces which may truly be called social, or the laws by which they act. He and his school, in this country and in Germany. have never learned to see the great bonds of human society which are developed by intercourse and communication, which hold the nations to a mutual giving and taking as they grow in civilization, which are stronger in proportion as they are natural. informal, impersonal, spontaneous, and in comparison with which all artificial co-operation is ridiculously insignificant. our present purpose, however, the thing to note is that social speculations and sociological investigations have nothing whatever to do with the tariff for protection. They only obscure and confuse the tariff question. If we should classify them we should find that they are either broader generalizations which flow necessarily from sound economic principles, and so can be left to take care of themselves while the economic investigations are going on; or else they are sociological doctrines which are parallel with sound economic doctrines, but which are most successfully pursued in special investigations; or else (which is by far the largest class) they are sentimental whims, popular notions, and metaphysical dogmas, which are not true, or at best are only half true, but which cannot be refuted without allowing the discussion to fritter itself away in innumerable side issues. have to understand that an economic investigation may be carried on just as independently as a chemical or physical or biological investigation. The economist does not need to be on the lookout all the time to correct his results by reference to some outside considerations, or to the dogmas of jejune and rickety systems of metaphysical speculation. On the contrary, he should regard the introduction of extraneous elements, no matter under what high-sounding names, of moral, political, and social, as sure signs of impending confusion and fallacy, and he should especially repel any attempt to measure and criticise his results by the facile generalizations of a priori speculation. much being here briefly set out, we may devote ourselves to the question of protection as a question of wealth and political economy only, as above described.

Let us take the case of a new country. It is claimed that a new country needs protection in order to get a start. Mill seemed to make some concession to this case. I have heard a man who was not a protectionist and who was a professional economist say that he thought a new colony might get into a situation in which it might need a lift to move it on in the way of growth. I will take up this latter view of the matter for discussion because it is the case which, if disproved, will a fortiori carry all the other forms of this claim with it.

I pass over the practical difficulty involved in the question who is to decide when the juncture supposed has come about. and who is to prescribe or give the lift; I pass over the unscientific and incorrect conception of econonic forces involved in the hypothesis that a nation can get into any such position, and also in the notion of a "lift" to be given to a nation, in order that I may come to the real test of the remedy proposed, if the case could arise, and if the remedy were practically available. It is evident that a protective tariff cannot render any foreign capital or labor available to help the nation which lavs the tariff. If a nation lays import duties for revenue some part of them may fall on the foreigner, but if it lays such duties for protection it keeps foreign goods out. If, then, the foreigner stays at home and is forced to keep his goods at home, the protecting country cannot make use of him or his goods in any way whatever to suit its ends or avert its misfortunes. Whatever effect the protective taxes exert must be exerted in the protecting country, on its own labor and capital. Any favor or encouragement which the protective system exerts on one group of its population must be won by an equivalent oppression exerted on some other group. To suppose the contrary is to deny the most obvious application of the conservation of energy to economic forces. If the legislation did not simply transfer capital it would have to make capital out of nothing. Now the transfer is not simply an equal redistribution; there is loss and waste in the case of any There is especial loss and waste in the case of tax whatsoever. a protective tax. We cannot collect taxes and redistribute them without loss; much less can we produce forced monopolies and distorted industrial relations without loss. It follows then that if a nation could come into some temporary industrial compression or arrested growth, a protective tariff not only would not help it out, but would contribute to still further limit its powers of self-development and to restrain its recuperative energies.

We have then reduced the issue which we are discussing to such terms that, after analyzing the phenomena, we are able to test the protectionist theory by universal canons of science, and we have a mathematical demonstration that protection is a delusion, which, like bimetallism, fiat money, socialism, and utopianism, is an attempt to make something out of nothing, or to create energy by law.

Here we shall be met, however, by the people who insist on believing that a better organization of labor, or greater activity of labor, or some other advantage which is real altho not specific, more than offsets the injury, or that the injured ones participate again in some vague gain. It is very singular that the people who believe in these notions are so slow to understand the fact that whatever lessens the wealth of a community, in the widest generalization or deduction only lessens its wealth! and cannot possibly increase it, and that the result is either to lessen the wealth per capita, or, if some do not become poorer, then others must be rendered still more poor. The protective tariff must act on people who without it would distribute their industry according to the chances of the greatest profit. is needed, by the protectionist hypothesis, in order to counteract the distribution which is thus brought about. But the tariff itself can appeal to no motive save that of desire for profit. does so by providing that a certain industry shall, under protection, pay higher profits than it could under freedom, and it expects that this inducement will operate to make labor and capital seek this industry. If then desire for profit was not a sufficient and wise guide under freedom, what makes it such under protection? The notion that the legislature has a wisdom greater than that of the people, and can point out the industries they ought to pursue, has often been refuted; but the protective theory really assumes more than that. It assumes that the law can enlighten the desire for profit, and make it a more trustworthy guide than it would be under freedom. In truth there is nothing at all wanted in the cases to which protection is applied but capital, which the law can never produce. The efficiency of the tariff is that it does get this capital-from other people. The rest is all phrases intended to occupy attention while the thimblerig is going on. If this is not so, let some protectionist analyze the operation of his system, and show by reference to undisputed economic principles where and how it exerts any effect on production to increase it. Customs sometimes grow up under the efforts of men to bring about arrangements which will be convenient for industry and commerce. The law can often follow these customs, recognize them, and give them positive form. Institutions grow out of needs, and to meet purposes, to which institutions the law can give form and sanction. I know of nothing more than this which the law can do for industry.

What has been proved now of a new country holds true all the more of an old one. The only difference is that a new country may endure protection while an old one cannot. country which produces, as all new countries do, food and raw materials may create parasite industries to live on the exuberant productions of its natural industries, and on the special advantage in exchange which a new country has when it exchanges food and raw materials for finished products. An old country cannot exclude food and raw materials. In a new country the burden of the tariff system falls on the superfluity of the people —superfluity not in respect to what they would like to have, but in comparison with what people in old countries have. In an old country there are large classes of persons who are at best on the verge of poverty, and who are forced to labor hard and for long hours to win subsistence. Taxes on food and raw materials would crush these classes down to misery. Germany is trying it with a tariff which is quite insignificant compared with ours. What I have proved, therefore, with regard to the effect of a protective tariff in a new country holds a fortiori in an old country, and is true universally. A restricted trade lowers the physical well-being of the population, and, with that, all chance of intellectual and moral well-being, below what it would be under free trade, with the same conditions of labor, capital, and land.

II. I go on then to consider the other protectionist position: that protection is not a means of wealth, but is temporarily expedient.

Under this head the controversy has rambled over the whole field of economic speculation, embracing also all history and all statistics, and here also the vague sentimental and metaphysical considerations have had the greater scope, as this is the more popular branch of the controversy. I propose to notice only two or three of the arguments for the expediency of the protective tariff, and those I must take more by way of illustration.

During the recent political campaign the chief argument which was used was that the tariff made wages high. I have before me a circular which was widely distributed in which wagereceivers were told that free trade would either force employers to close their shops or to reduce their wages to foreign rates. In Germany the argument is that English workers get higher wages, which proves that they are better workmen, and that the Germans need protection against them. In America the argument is that the Englishmen do not get as good wages as the Americans, and that therefore the Americans need protection. The advantage of an empirical argument is that it goes as well one end foremost as the other. Suppose the Germans should argue like the Americans. They would then have to argue that free trade would raise their wages to the English rate, as the Americans argue that free trade would lower their wages to the English rate. Suppose the Americans should borrow the German argument. They would then have to argue that, as the Americans get higher wages, it proves that they are better workmen than the English, and need no protection against them, and a fortiori none against the workmen of the Continent.

There is one entirely American element in this argument, however. That is the claim or assumption that the high comfort of the American laborers is due to the tariff. One orator during the last campaign, who spoke with the authority of high official position, spoke with contempt and impatience of the low plane on which this tariff question is discussed, as if it were a mere question of dollars and cents, when in fact it is a question of status of the population and of the well-being of the wages classes.

We must distinguish here two propositions about wages which are constantly confused with each other, and which the protectionists find it very useful to confuse, altho they are inconsistent with each other, and both are false.

It is argued (1) that we want protection because wages are high, and (2) that we want protection in order to make wages

high. To the legislature the high wages are represented as caused by some independent forces, and as a fact in the condition of the country which constitutes a reason for protection. To the workman it is argued that, the politicians and the employers having considered the matter and agreed that the American workingman ought to be well fed, clothed, etc., they have decided that he must have high wages, and that the tariff is the way to get them for him. This picture of the employers neglecting their business to lobby for a rise in the wages of their own men would be entertaining if it were not really so successful in deceiving those to whom it is addressed. The two branches of this argument about wages demand separate consideration.

I. Sociology is such a new science, and is as yet so little understood, that it is not strange if its doctrines have not yet spread very far through the community, but a superficial acquaintance with it would prevent any one from believing that politicians and statesmen can plan what sort of a people it would please them to have, or what degree of comfort they consider appropriate for the working classes. Nevertheless we have hundreds of politicians and orators who always start from a conception of this sort. It is evident, however, that the people of the United States must get their living out of the soil of the United States. We have an immense amount of land of the best quality, navigable rivers, great forests, mines of metal and coal, and we have to get out what we can with the labor and capital at our disposal. Whatever we get out will be distributed amongst us according to our shares in the production. As the natural stores are very rich and easy to get at, and as the laborers are few, it follows that the average product per laborer is greater than can be obtained in old countries, where the soil is more or less exhausted, and where the population is so dense as to make the competition of life very hard. This latter state of things affords us the second term of comparison by which we measure our status. Taken absolutely, there is plenty of room for improvement in our situation, and in the status of whole classes of our population.

We have, then, a perfectly obvious and sufficient explanation of the status of our people in natural facts. The statesmen have never planned this or done anything to help it. They have only marred it more or less. What we are is the result of our inherited traits and traditions, and of our physical surroundings. What there is about us which is good or bad, strong or weak, is alike to be attributed to these causes. High wages, therefore, or, more properly speaking, high average comfort, with little pauperism or misery, are incidents of our situation as early comers on a new continent. Yet there are people who tell us that they, in their wisdom, have made us well off by taxing us, and that we should not be so well off any more if we should get rid of the taxes, and they persuade the people who pay nearly all the taxes on consumption—namely, the artisans and laborers—that they could not get their living on this continent if they did not pay taxes. That is like telling a laborer who opens his dinner-pail that he would have more dinner if he would throw away a slice of bread.

This continent, however, is not so exclusively favored that it is likely to draw to itself all the population of the globe. Other continents have their advantages, and the one which has the best advantages for food and raw materials cannot in the nature of things have those advantages which come from a dense population and a high development of the arts and sciences. No one will be willing to turn away from the industries for which the country offers the best advantages to take up those in which other countries have the best advantages, unless the difference can be made up to him in some way. Hence manufacturing industry here has always had to contend with the profits possible in agricultural pursuits. Wages-so far as any wages class has ever yet been developed here-must be high enough to give the same scale of comfort as can be won in using land. The high wages and general high average of comfort are, therefore, plainly the same thing, and both proceed together out of the actual physical circumstances of the people.

What, then, can the tariff do about wages? It can only increase the wages in mechanical pursuits by deducting from the gains of agriculture. As we said above, it can win nothing for some without an equivalent or greater deduction from others. It no doubt draws upon each mechanical industry to make it help support all the others, and so it weakens them all; but whatever strength and help it brings to them as a group it must

take from other groups. If, then, we are candidly seeking for the true effects of the restrictive system on the national welfare, and on the welfare of special classes, we must note that this operation cannot increase the national welfare, and we must look to see on whom it is that the corresponding loss falls. is plain that it is upon the agricultural industries of the country, and accordingly a special bundle of fallacies has been devised for deceiving the agriculturists into the belief that they are gainers by it. It is evident, however, that every reduction in agricultural profits makes it easier for the employer to compete with the land for labor. The rising wages and the falling profits of agriculture meet each other at a point below what the profits of agriculture would be under freedom. If there were no tariff, the wages of the wages class must go up to the full measure of the agricultural profits under freedom. Hence the tariff lowers It never has had and never can have any other effect. The employer in a protected industry pays no more than market rates for wages, and he could not possibly pay any less. The notion that he could lower wages to some foreign level in the midst of a country where labor could win higher rewards is of course absurd.

We see, then, that the argument that the tariff makes wages high is entirely without foundation. It has lowered wages. We see that the notion of having a tariff in order to secure to our people what they have as their birthright, and what the tariff only diminishes, viz., a comparatively better and easier existence than the people of older countries, is an imposture. It has very great popular effect because the popular notion is generally that we owe all our prosperity to ourselves and to what we call "our institutions," when in truth we owe everything that we are to historical antecedents and physical conditions.

Having stripped off this humbug from the issue, as stated by the protectionists, we may come back to the scornful complaint that we are discussing the question on a low level. We were told that we ought to debate it as a great question of status of the population, etc., and we have found that this was all rhetoric and fustian except the effect of the tariff to lower the status of the population. It follows, then, that we were right to debate it as a question of dollars and cents only. There is nothing else in

- it. A wants protection; that is, he wants B's money. B does not want to let him have it. A talks sentiment and metaphysics finely, and, after all, all there is in it is that he wants B's money. A does not otherwise show much interest in sentiment and patriotism and metaphysical goods generally. He never goes to Washington to lobby for education, or scientific research. or geographical exploration, or for any philanthropic scheme, unless there is a chance in it for him to get B's money. He is then moved to scorn at B's sordid love of money, and he goes to hear a lecture on "materialism" to gratify his wounded feelings because B will not give up his money. The matter is all stated from A's standpoint. We see him all the time. For him to want B's money is patriotic. It is "developing our resources." It is noble. For B to want to keep the same money is mean. I insist upon the matter being stated in the most crass and vulgar way, just because that is all there is of it when the humbug is all eliminated. The student of history then recognizes a very old friend. The robber-barons, Robin Hood, Dick Turpin, and others have had the same opinion of the nobility of wanting other people's money, and of the meanness of the "trader" or laborer who did not want to lose his earnings.
- 2. Let us next look at the other doctrine, that we need a protective tariff because wages are high; or the equivalent doctrine, that we cannot compete. The people of the United States can compete with anybody in getting wealth. The high wages are a proof of it; but they cannot compete with everybody else in every form of industry. They have only a limited number of laborers and a limited amount of capital. The same man cannot be doing two things at once. The same capital cannot be employed in two uses. Hence it will be wise and necessary to choose the most profitable of all the profitable employments which are possible. It will follow that we cannot afford to compete in any industry which will not pay here as well as those which have special advantages here. If we cannot compete, it is because we cannot afford to compete. We are too well off. We cannot compete with "foreign paupers," just because we are not paupers. "Pauper," of course, is one of those silly and invidious terms which have been introduced into this discussion in the interest of falsehood and folly. Paupers and

princes live in idleness supported by taxation. No one can compete with them. Seriously, then, we cannot compete with men who are fiercely competing with each other for low wages in a dense population because we are not fiercely competing with each other. We have abundant chances. The protectionists are not content, however, to use our advantages and avoid competition, which is what every sensible man does in private life. According to them we must go to seek competition. It will be told in history that a public bureau of our government spent part of the capital of the nation in seeking competition with Chinamen in making tea, at the very moment when the same government was trying to devise means to prevent Chinese competition in this country, where it could do no harm. As we shall seek competition with less favorably situated people only at a constant loss as compared with the gains we might win in our own favored industries, those who are carrying on the self-supporting industries must pay taxes to make up the loss, and the wealth of the country must undergo a constant waste. If a blacksmith should say that he could not compete with the shoemaker at making shoes, and therefore that he ought to be paid twice as much as the shoemaker for making shoes, his sanity would be doubted, but that is just the argument that we need a tariff because wages are high. It is because wages are high that we do not need one, and it is because we cannot compete in certain industries that we ought not to try. Some people think it is derogatory to us not to do everything for ourselves; and as they always seem glad to hear that we are exporting more and more, they seem to be desirous that we should make things for all the rest of the world too. What, then, I ask, is the rest of the world to do for us? If we take all the industries, how will they pay us for what we do for them? Competition is the force which under freedom indicates to us what we can do for ourselves and them, and what we can let them do for us to our final maximum advantage. To shut off competition and go into the industries which the ignorant empiricism of Congress or the caprice of individuals may select, is like unhinging the compass and steering the ship by chance.

3. There is no argument for the expediency of the tariff to be found in the matter of wages in any of its aspects, but it is

sometimes claimed that it is expedient to force certain industries into existence. This is called "developing our industries." We are good-natured enough to call them "our" industries, perhaps because we all pay taxes to support them, not because we own stock in them or participate in the profits. There is a very strong popular notion that it is a good thing for A, B, and C that there should be certain mills, factories, etc., up and down the country—a notion which has no support in fact at all, unless A. B. and C are owners of land near the factories, etc. individual were shown statistics of men employed, wages, capital, plant, output, etc., of a certain establishment, and were asked to invest in it, he would no doubt inquire, after all, whether the establishment made profits, since unfortunately not every big chimney does so; but when we are making speeches or writing essays about tariff, this last question is entirely ignored, and big figures and exclamation-points take the place of the only question which is important. If an industry does not pay, it is an industrial abomination. It is wasting and destroying. The larger it is the more mischief it does. The protected manufacturer is forced to allege, when he asks for protection, that his business would not pay without it. He proposes to waste capital. If he should waste his own wealth he would not go on long. He therefore asks the legislature to give him power to lay taxes on his fellow-citizens, to collect from them the capital which he intends to waste, and good wages for himself while he is carrying on that business besides. This is what is called "developing our industries," and the operation of the law is such that the waste and destruction can go on indefinitely. Either an industry can pay under freedom, in which case it does not need protection, or else it would not pay under freedom, in which case it is wasting the wealth of the nation as long as it goes on. It follows that the protective tariff is not a temporary expedient, and it is mathematically impossible that it should ever issue in an independent and productive industry. Other forces may come into play in time, viz., those which would at that time have called the industry in question into existence, and these forces may render the industry independent, but the tariff can never produce any such result.

4. Some have believed that the tariff system brought capital

into the country, and two or three instances of foreign manufacturers who have established branches here have been pointed to as triumphant proofs of it. I know of no statistics either of the amount of capital so imported or of the amount which the tariff has caused to be exported; but I should judge from such information as I have that one just about equalled the other. What is far more important, however, is that if the tariff were taken off any one of a great number of important articles, the people could save more capital in a month out of their diminished cost of living than all the capital which has been brought in here in twenty years on account of the tariff. A similar observation applies to the argument for deferring the reform of the tariff, that it would destroy capital now invested. No one proposes or desires any reckless action which would disregard vested interests of any kind, altho I do not see what difference it would make with what any one would really do, whether he had warning that the tariff would be repealed in five years or in five days: but that is a question for a statesman, and not for an economist. The economist may point out that, if any capital were destroyed, the savings of the people from a diminished cost of living would constitute an enormous fund for replacing that capital and offsetting that loss, so that, as far as the mere loss of capital is concerned, there would be no argument for delay.

5. I proceed to a brief but very cogent argument why a protective tariff is not expedient. Protection works all the time against improvement. In April, 1838, New York City indulged in great rejoicings over the arrival of the first steamships from Europe. In April, 1842, at an "Industrial Convention" held in New York City, the opening of steam navigation on the ocean was alleged as one of the chief arguments for protection. We are taxed to open our rivers and harbors, and the result is cheaper goods. That is the benefit which we anticipated and were working for, thinking that it would be a gain. As soon as it is realized, however, comes a clamor from home-producers of those kinds of goods which have been cheapened. "What! Do you mean to say that it is a good thing for the country to have people get the things which we make at a low price? This will never do;" and so a tax-barrier is set up across the rivers

and harbors to imitate the former barrier of sand and rock, and make things as dear and as hard to get as before. If protection is expedient, then this argument is sound, and we need more protection the more our communication with foreign nations is facilitated. Steamships, ocean cables, and cheap newspapers are all the time neutralizing the existing protection, and more taxes are necessary to give the same protection. If protection is sound, then those who rejoice over improvements in communication and transportation and support protection are guilty of absurd folly. If improvements, inventions, and discoveries are real benefits to mankind, then protection is inexpedient as well as philosophically absurd.

Commerce is plainly entering on a new stage. Common-sense makes its way very slowly into the minds of men when it has to rely on its own merits, but the course of progress in industry and commerce is such that self-interest often becomes hand-maid to common-sense, and then common-sense gets a chance. have seen five or six new industries grow up in this country within a few years. They are all "land" industries; that is, they belong to the natural advantages of the country. They are in their infancy, but they are already great, and what they are to become no one can guess. They depend on a foreign market, and they have been made possible by cheap and quick ocean transit. Within a year a fleet of new steamers promises new growth in the same direction. The internal transportation of the country, especially in the West and South-west, will support the same growth. The effect is to cause great changes in the distribution of labor, great absorptions of capital in new orders of investments, and the creation of immense new interests. would be overbold to predict specific results, but this much is clear: the competition of American agriculture will drive English labor and capital more exclusively into manufacturing and commerce. The complementary effect must be exerted here, and the profits of land industries will draw off labor and capital from manufactures and commerce. In other words, the international division of labor will be rendered more perfect, and the consequence must be greater wealth for all. But if the tariff still remains as a barrier to imports, i.e., return cargoes, the exchanges must rule low to the detriment of all the exporting

interests, and if specie is imported prices must advance. But the exports cannot rise, since they are forced to seek a foreign market. They will therefore be low, while everything else inside the country is high. This is, of course, the operation of the tariff now all the time, and it is the mode in which the tariff oppresses the land industries; but the whole course of the development which I am anticipating will be to make this oppression harder and sharper, while the tariff will all the time need to be raised higher and higher if it is to be of any avail at all. How long will the system stand such a double strain? If there is any industry which really depends upon the tariff, it cannot too soon begin to learn to do without it.

WILLIAM G. SUMNER.

THE REASONABLENESS OF FAITH.

HATEVER may be the cause or causes of the fact, the fact itself cannot be denied that there has come on our time a great ebb of faith, a great receding of the tide from the shore of the spiritual world. If this is so it cannot be inopportune to put to ourselves the question, Is faith a reasonable principle of action? Is it reasonable to shape our whole life by belief in truths which we can apprehend but cannot demonstrate? No more momentous question can be asked. And it is being asked by many at the present time, and is receiving many answers. Of those who answer it in the affirmative, many able writers might But there is one answer to the question which has be named. recently been given, and which seems to me so fair and so solidly grounded that I propose to follow now the main outlines of the work which contains it. That work is in the Rev. Henry Wace's Bampton Lectures for 1879, entitled "The Foundations of Faith." In the survey of this work which I propose to make, while I shall summarize his main argument, I shall reserve to myself the right to add here and there such other thoughts and comments as may seem to throw light on the whole subject.

The first great fact to which Mr. Wace draws attention is that almost all the great civilizations of the world have been founded on faith rather than on reason, on moral trust in some man or set of men, in whose words and promises their followers have placed implicit reliance. It was so with the Jews, the whole of whose polity was built on faith in an unseen but Almighty Leader, on the assurance that whatever might betide the Lord of Hosts was with them, the God of Jacob was their refuge. Their sacred books were all one prophecy that Israel should yet blossom and fill the face of the world with fruit; their

whole history looked forward to a Deliverer who was yet to be born. With them, at least with the leading spirits of their race, the present and the visible was as nothing compared with the invisible and the future.

Still larger and more imperative is the demand for faith, for trust, made by the Christian church and by Him who founded it. Our Lord never once professed to demonstrate the truth of his assertions to the common understanding, but called for faith, absolute trust in himself and in his assertions. Believe in me, Trust me, Follow me, absolute reliance on his Person, not assent to demonstrated propositions, was his whole method of dealing with men. The parable in which he announced the fate of the Jewish polity, and the nature and spread of his own kingdom, were essentially prophecies, which at the time made the largest demand on men's faith, but which the history of Christianity has so far wonderfully fulfilled.

But it is not the Jewish and the Christian religions alone that make their appeal to faith, and faith in a Person. The whole strength of Mahometanism has been reared on the assurances of one man, and on his appeal to one great truth and to certain moral intuitions.

Similarly, Buddhism and the more ancient religions out of which it sprang all ground themselves, not on convictions as to the visible, but on faith in things invisible. To the followers of Buddha, who outnumber those of any other creed, the things unseen which they believe in on the authority of their leader are more real and more substantial than all that they see or handle. For these they are ready to sacrifice all that men hold dear, and life itself.

Look back on the whole course of history: everywhere and at all times you will find that it has been "the invisible rather than the visible, the future rather than the present, faith rather than sight, that, as a matter of fact," has swayed the hearts of mankind, has organized them, has advanced the world to its present condition. Or "the giving substance to what is hoped for, the testing of things not seen," has, as a matter of fact, been the mightiest and most universal lever in the movements of the world's history. And all these different creeds, which have been at once the organizers and the dividers of mankind, widely as

they differ in the objects of their faith, yet agree in this, that they make their appeal to a faculty which is essentially the same in them all, the faculty of faith.

St. Paul said, "We walk by faith [or trust], and not by sight," and all the Christian nations which had received his teaching. and all other nations who have had any religion, have either lived or professed to live by faith of some kind. Hitherto faith has been the supreme principle by which men have professed to govern their life and direct its aims. In the conduct of life intellect has played an important but yet a subordinate part. But nowadays we are told from many sides that all this is to be 'reversed; that we are henceforth to live by sight, not by faith; that we are to believe nothing which has not been verified by scientific methods. And the scientific methods are observation and experiment, in which the understanding works solely on data supplied by the senses. "Science is in the air," and not only in the air, but seems to have filled it to the exclusion of everything else. Its achievements during the present century have been so marvellous that it has in many ways changed the whole outward condition of our lives. In the opinion of some it should now proceed to change the whole inward condition of our life also. As represented by some of its exclusive devotees, it would now fain usurp dominion over our hearts and affections, and dictate all that we are to love, to believe in, and to hope for. If there have been ages in which faith was made too much of, in which the future life was made everything and the present life too little regarded, the wheel has come full circle, and now we are at the opposite extreme.

The tendency natural to all men, learned and unlearned alike, to be entirely absorbed in the present and the visible, and to forget that these have eternal issues—this tendency against which all prophets and teachers have from the beginning cried aloud, and against which all good men have striven as a sore temptation, it now appears is not wrong at all, but altogether right. A science, or rather a philosophy founded upon science, has arisen which justifies this secularity of mind, and tells us that we have no right to believe anything which we do not clearly understand and cannot prove by scientific methods. And scientific methods demand verification by observation and experiment, and where

this is not forthcoming they deny all right to believe. This principle, true and important within the domain of physics, it is now proposed to extend into the region of moral and spiritual truth, and before its touch all such supersensible truth disappears. If the moralist or religious teacher cannot produce the same kind and amount of evidence for their beliefs as that which the physicist demands for his, then the right to believe at all in moral or spiritual verities is denied. The circle of our belief is to be coextensive with the circle of our accurate knowledge: This is really what Mr. Huxley's principle comes to. In his exposition of Hume's doctrines he has said that "a belief is void of justification unless its subject-matter lies within the boundaries of possible knowledge, and unless its evidence satisfies the conditions which experience imposes as a guarantee of credibility." The drift of this somewhat vague and ambiguous language clearly comes out when we find Mr. Huxley agreeing with Hume that our belief in immortality or in God is without scientific warrant. And scientific evidence is the only one evidence which men of that school will receive. Trust in moral truths which cannot be verified by their methods, trust in an inspired or in a Divine Teacher, faith in his words and character, are, it would seem, no sufficient grounds of belief. But these are the grounds on which we receive all Christian truth. It comes to this, therefore, that the scientific method applied to religious truth not only conflicts with it, but sweeps away the very grounds on which it rests. If we are to believe nothing but those things which can be verified by the scientific method, then we can have no religious faith and no moral convictions. This is what we must land in if we give ourselves up to the unbalanced predominance of one exclusive habit of mind—to the understanding judging according to sense. And to this some of the foremost expounders of science in our time have themselves come. And the very boldness and extravagance with which they urge their claims seems in many quarters to insure success. It wins for them a hearing and even credence in many minds which are overborne by strong assertion and are not able to answer the specious arguments which they hear.

The presence or, in many quarters, the predominance of this habit of mind in our time is acting much as an iceberg

acts when it floats from the arctic zone into the milder atmosphere of the temperate seas. It is chilling the moral atmosphere, discouraging all nobler impulses, and rendering the old enthusiasms all but impossible. In the region of theology it has long since given rise to the extreme rationalistic school. which denies every element in the Scriptures which cannot be explained by the natural understanding. But, far short of this. it has produced in our day what has been called a minimizing theology; that is, a theology which shrinks from asserting anything which is mysterious, and pares down all that is essential in Christianity to that only which at once commends itself to the enlightened intelligence and feeling of educated society. What squares with this it reserves; whatever transcends this and passes into mystery it rejects, or at least throws into the background. It takes its stand on the Sermon on the Mount, as if that were all plain and easy to be fulfilled; and the more mysterious words which our Lord uttered and the deep truths which St. Paul taught it passes by, as not in harmony with the spirit of our enlightened age. This minimizing theology is an attempt to meet and satisfy that frame of mind whose first question is, "How little are we required to believe?" But the attempt is from its very nature a futile one. For the one fundamental tenet of all religion, without which no religion is conceivable the faith in the existence of an all-good and omnipotent Godis a demand on our faith which at once carries us beyond all the limits of human understanding or demonstration. He who has once really laid to heart the belief in God as the Bible has declared him has committed himself to a region of faith which lies beyond all our power of reasoning, and compared with which all other parts of the Christian faith are easy to embrace. see and feel the existence in the world of so much pain and suffering and sin, and yet in the face of that startling anomaly to lay to heart and live by the faith in an all-wise and all-loving God, this demands an exercise of faith which makes all belief in miracles and other mysteries seem a light thing beside it. As Mr. Wace has well expressed it: "When subjected to the analysis of reason, and brought into contact with a rigid scientific standard, the belief in God presents more momentous difficulties than any of the articles of faith which follow it. The moment the scientific reason begins to discuss it we are confronted with the tremendous and apparently insoluble problem of the existence of evil. The faith which in the full sight and consciousness of that problem maintains its firm assent to the absolute goodness and omnipotence of God has abandoned the ground of mere rational belief, and has taken a step which justifies, in principle, any subsequent advance. It has given up, once for all, the right to measure its assent by the limits and dictates of reason alone, and has committed itself to the hands of an altogether different guide." (P. 15.)

It is just when the evil of the world is most deeply felt, when the burden of this mystery presses most heavily on the human spirit, when the dark facts of existence, before which reason is impotent and speculation unavailing, are most vividly realized. it is precisely then that the deepest, most mysterious parts of the Christian faith assert their power to meet the human need and satisfy the soul's anxious questionings. At such a time the deistic representation of a benevolent yet impassive God, who calmly from aloof contemplates the spectacle of human sin and suffering, is rejected with something like indignation. no God at all than such a God as that! But when the soul in its anguish hears of a God who is touched with a feeling for human infirmities, who does not stand wholly aloof from us, but has himself entered into the contest with evil, taken on himself our human nature and borne the full burden of man's wrongdoing, of one who is at once the redresser of wrong to those who have suffered and the pardoner to those who have done, it feels that here at least is a truth that comes home to it, a remedy that at least does not mock its need. More and more as the pressure of the great problem raised by the existence of evil has come home to men and troubled them both speculatively and practically, it has been felt either that no answer speculative or practical can be given to it, or that the one adequate antidote to such perplexities lies in the deepest and most distinctive truths of Christianity; that therein lies, not a speculative solution, but a practical satisfaction to these perplexities; that in them there is hope for the direct ills: if not there, then nowhere,

As Mr. Wace has expressed it, it is "in those doctrines which make the strongest demands on faith, and are the most remote

from any possibility of scientific verification, that Christian souls find their support and refuge under these burdens of the flesh. these torments of the spirit. 'The message that God so loved the world that he gave his only-begotten Son, that whosoever believeth in him should not perish, but have everlasting life' this is a message, simple as are its terms, which transcends all philosophy, all reason, all experience, nay, all capacity of comprehension; and yet it is in reliance on this message, and on other assurances of the same kind, that Christians are delivered from despair, and are enabled, under whatever distresses, to cling to their belief in the love of their Father in heaven. When the Christian minister can assure a suffering soul on the bed of death, in misery and pain, that, whatever its agonies, the Son of God in human form endured far worse for its sake . . . he applies a remedy which is equal to any need. The message of the Cross, interpreted by the doctrine of the Incarnation, is thus, in moments of real trial, the support of the most elementary principle of faith. In fact, the minimizing theology depends for its plausibility on a simple evasion of the real problems of philosophy and of the practical difficulties of life. and explicit faith of the creeds recognizes these difficulties and looks them in the face. It owns that they are insuperable on any grounds of mere natural reason, and it offers supernatural realities and supernatural assurances to overcome them."

Every philosophy professes to seek for and to reverence facts. Here, then, is a series of assured facts which philosophy would do well to lay to heart. For eighteen continuous centuries there have existed in each generation hundreds on hundreds of well-authenticated instances in which human beings, under every pain of body and every perplexity of spirit, have found support and comfort from those very Christian truths which most transcend all understanding, which mere cold reason most scorns—from these truths and from no other. Has any science or any philosophy ever furnished a remedy that can meet such a need? Have they not rather turned away from such cases in despair? These are facts which are indubitable, and no fair-minded man, believer or unbeliever, but must in candor acknowledge to be facts, however he may explain them.

To this the candid sceptic might reply, I grant the facts you

point to, that such beliefs reaching into the unseen world have been wide-spread and long-enduring; I even admit that they have worked beneficent results in the past. But the same might be said of many delusions which in time have been proved groundless, and have been exploded. And of the spiritual convictions you allude to all that we say is that they cannot be shown to have reasonable grounds. Nothing has a reasonable ground for being believed which cannot either be demonstrated from first principles, like mathematical truths, or verified by observation and experiment, like physical truths. Outside of these two spheres there may lie many truths, but we cannot be assured that they are truths. The scientific method recognizes nothing as true which does not submit to its proper tests.

In opposition to this we maintain that man has within a power which rises above nature, outgoes the realm of sight and sense and observation, and lays hold or becomes assured of This power is faith. things not seen. That it is a reasonable process—one which, if reason cannot prove to be trustworthy, it can at least see to be reasonable—we hope to show in the sequel. And faith and its objects have this good warrant, that the more the one is acted on and the other are laid to heart, the more is faith transformed into knowledge. This experience, to him who attains to it as a personal argument, is incontrovertible, but it is not one which he can produce to satisfy those who have had no such experience. It is personally and subjectively satisfying, tho it is not intellectually or objectively available. The state of the case seems to be this: In the intellectual world there seems to be for the present a weakening of the principle of faith owing to the presence and the predominance of the purely scientific spirit. But how has this come about? Not because either physical science or historic criticism have disproved any one of the great Christian truths. Even in the case of miracles, which most of all falls within the physical sphere, science can allege nothing to disprove them. Mr. Huxley has lately said that "no one who wishes to keep well within the limits of that which he has a right to assert would assert that it is impossible that the sun or moon should ever have been made to appear to stand still in the valley of Aijalon." Again: "No event is too extraordinary to be impossible, and therefore if by the term miracle we mean only extremely wonderful events, there can be no just ground for denying the possibility of their occurrence." How, then, has science acted against faith if it has not disproved any of the truths of faith? Simply by the way in which it has absorbed men's attention and turned them, for a time, from other objects and other kinds of evidence. Mr. Wace has well said: "It is simply that the dazzling blaze of the greatest illumination ever opened to the natural eye has entranced the mental vision of our age, and has made other objects and other sources of illumination for the moment dim to men. The apprehension of Bacon has been fulfilled. 'Sense, like the sun, opens the face of the earth but conceals the face of the heavens.'"

Men are all one-sided. Exercise one faculty exclusively, the other powers dwindle and cease to act. Many scientific men have been so absorbed in the exercise of their purely scientific faculties that they have allowed the spiritual side of their nature to lie dormant. This may account for the negation which is found in many of them. And as for the multitude, they seldom judge of speculative problems for themselves, but are led by the strong assertions of those who are distinguished in any line of thought. I shall therefore now turn to the question. If the scientific method can neither prove nor disprove spiritual truths, is there in man's nature any other power which can guide us aright as to these truths, any other kind of assurance regarding them which, tho not scientific, is yet reasonable and trustworthy? If religious truths are not to be tried by the same tests as facts of physics or chemistry, by what tests are they to be tried? Is there any rational evidence which can be produced in support of them?

Now history and religious experience alike prove that there is one principle in man's nature to which religious truths appeal, and that is the principle of faith. Moral action and spiritual progress alike presuppose this principle, rest on this basis. The highest or most perfect goodness is, St. Paul tells us, revealed from faith to faith; that is to say, "It begins by acts of faith, it advances by acts of faith, and it is perfected by further and larger acts of faith." The rule here is not *intelligo ut credam* (I under-

stand in order that I may believe), but credo ut intelligam (I believe in order that I may understand). That this is in things moral and spiritual a true and reasonable principle, that in these regions knowledge grows out of trust, trust especially in persons, and that exact knowledge does not precede trust, I shall try to show. Let me begin by asking whether there is anything analogous to this theological act of faith in common life. Does faith in any way enter as a practical power into the ordinary concerns of men? It does. Trust, we answer, in one sense or another is the starting-point in all our thinking; it is the cement of our practical dealings and of our social intercourse. Look at the sphere of intellect: on what does all thinking rest if not on trust in our mental faculties, trust in their verdict, which we cannot prove by reasoning or verify by experience?

I suppose that the belief in our personal identity, that we are the same persons now as we were ten years ago, lies at the root of all our thinking. Without this belief we cannot proceed a single step. Yet who can prove it were any one to deny it? Again, is not belief in the acts of our memory a fundamental necessity before we can lay up any knowledge? I had such or such an experience ten years ago as this I believe because I remember it. Yet how can I prove it except by trust in the truthfulness of my own memory?

Again, in the beginning of all physical science we see that no step can be taken unless we assume certain hypotheses which cannot either be demonstrated or verified by any experience. These are assumed, and all the verification they ever receive comes from the fact that we find that by assuming them we can work out certain results, and introduce into confused phenomena order and intelligent explanation, which but for these assumptions would be impossible. For instance, take that axiom on which Newton grounds his whole discussion on the laws of motion. Every body continues in the condition of rest or of motion in which it happens to be, except in so far as it is made to change that condition by some force impelling it from without. Here is an axiom assumed without proof, but which justifies itself only by enabling other truths to be proved—truths which explain all the movements of the planets. This instance—and many more might be given—is perhaps enough to show that even in purely intellectual operations we must begin with reliance on the truthfulness of our faculties. And such reliance, if not faith in the usual sense of the term, is at least analogous to it. It is the opposite of that scepticism which distrusts all things, and so destroys the first grounds of all thinking.

But it is in the moral region rather than in the intellectual that faith in its distinctive character first comes into play. The roots of all morality, as well as of religion, lie in faith. In moral action, as well as in spiritual inspiration, faith has a region of its own, in which it is the rightful and supreme power, and in which scientific reasoning has no place.

What is it that is the bond of all men's dealings with each other, the cement of all healthy society? Is it not trust in others, confidence in character? This trust, this confidence, is not founded on scientific data, cannot be justified by any reasoning or tested by any process of scientific experiment. We see and know a person, and if he commends himself to us to be trustworthy, we do not wait for any scientific process, do not analyze his character till we have found that it may be relied on, but we give him or her our confidence, we say, "I will trust that man to the end of the world," and in nine cases out of ten we are not disappointed. The result justifies the confidence we reposed in him. Here, then, is a principle of action founded on nothing scientific, but on an instinctive perception of charac-Here we trust our instincts, our natural perceptions of character. We cannot justify them by reasoning, cannot analyze them; but not the less on this account, perhaps rather the more, we give our confidence to persons, and for the most part are not deceived. This is the principle on which society is in a great measure organized, and if it were withheld, or impossible, society would be dissolved.

Again, it is by trust in others that the moral education of the world has been carried on, that every advance in righteousness has been won. Some great teacher or prophet arises who, by his words, his example, the elevation of his whole character, attracts men to himself and wins their confidence. They see him, they hear, they trust, they give him their hearts, and devotion to him becomes the ruling power of their lives, the source of their moral renovation. The most momentous changes in the world's history have been wrought by such influence. Moses. Socrates, Confucius and Buddha, and Mahomet—it was not by scientific proof or by experiments in morality that they won the devotion of their followers, and set the world rolling on They strengthened men by their words, they animated them by their example, they inspired them by the contagion of their own self-devotion. One can imagine the noble scorn with which they would have silenced him who should have asked them to prove their words or to justify their lives by scientific processes. Not thus, but by the self-evidencing power of the spirit that was in them, did they overcome the world, and leave it other and better than they found it. Not to speak as yet of the greatest of all instances of personal example, how was it that the early Christian church overcame the pagan world, and restored its moral decay by a new and living morality? It was by men who "had heard, had loved, had trusted the apostles and their teaching, and who in the strength of that trust lived lives which abashed the dissoluteness of the Greek and the profligacy of the Roman, and woke up a conscience within that witnessed to the truth they uttered."

If it were not an ultimate law in human nature that in moral action men should begin by following the lead of those whom they feel to be wiser and better than themselves, no new moral habits could be formed, no moral advance would be possible. What would become of the young man who should say, "In all things moral I shall experiment for myself, I shall try for myself whether it is better to be truthful or untruthful; I shall 'love provisionally,' be pure if after trial it proves itself to be best, be unselfish if consequences seem to warrant it"? But as has been said, "Life is not a laboratory of social experiments, but a field of action and of conflict," in which the weak by intuition recognize the strong and follow them, the fallen and defiled feel the presence of the pure and take hope, the despairing take courage from the sanguine and the brave. And this they do, not from any evidence which they could produce in argument, but from intuitions which they cannot explain, but which justify themselves in their results. For there are feelings which are their own evidence, promptings of the heart which men act on in proportion as they are single and true. "Faith or trust, love, and hope, then, are not mere theological virtues," of which we hear only in the Bible. They are the root-powers of human nature, the shuttles which weave the whole web of healthful society. Yet these powers which govern human action are incapable of scientific verification. If they are not self-evidencing, they cannot be confirmed by any better evidence.

We see, then, that trust—trust in the character of others, which we can give no reasons for, but in which we have the fullest confidence—is the bond of all social life. But I now go a step farther and say that, even in the case of individual men, every really moral action springs directly out of faith, is a product of faith. Take the simplest instance. A case occurs in which it would be obviously for my worldly interest to tell a lie, and I could do so with impunity, for there would be no chance of discovery. But a principle of honor, a sense of right within me, constrains me to tell the truth, tho it will be to my disadvantage. What is this—the refusing the seen gain and abiding by the unseen principle—but an act of faith? This preferring the unseen to the seen is of the very essence of faith, and this is what constitutes morality as distinct from expediency.

I know that there are philosophers at the present day who will explain the preference for truth to falsehood as a generalized experience. The experience of the race, they say, has proved that truth pays best; that it is more useful for society in the long-run that men should speak truth; and this generalized maxim of the race, handed down, becomes an instinct in individuals. But there is something in the case which the inherited sense of utility cannot explain. Whence comes the sense of approval or self-satisfaction that follows the speaking of truth, the feeling of pain and remorse that follows the disregard of truth? The feeling that we had set at naught a generalized maxim of the race could not account for these feelings. They are generated from within; they are the witness of our own essential being to righteousness, which is independent of ourselves and even of the experience of the race.

From this one instance we may see that all action which is truly moral is born of faith, of trust in unseen principle which is above us and independent of us.

To quicken and to deepen the moral nature in man no power has ever acted so directly and penetratingly as the appearance of Christ in the world and the revelation of God in him. to this day it is practically found that the presentation of the historic Christ is powerful to quicken conscience and call forth faith far beyond all systems of evidences. But at a day like the present, when the primary acts of faith to which Christianity appeals, on which it rests, are being set aside, and scientific verification is being demanded for moral and spiritual truths, it is necessary to go back and ask what are the real grounds on which these actually rest, what is the kind of evidence which properly belongs to them. We have seen how powerful faith or trust in the unprovable is in social life, how it lies at the root of all truthfulness in speech or act. We now go on to ask more generally whether we are justified in believing anything which cannot be demonstrated like mathematical truth or verified by ordinary experience like physical. The primary truth of all religion, the existence of God, is incapable of such verification, and therefore has by some pretended lights of our day been treated as an unwarranted hypothesis. They demand proofs which shall satisfy the cold, unfeeling reason, and we tell them that we have them not to give. And this because it is not by demonstrations or by arguments of probability, or by any simply intellectual process, that we become convinced of moral To apprehend moral truths at all, much more to verify them, requires some amount of active moral feeling; to apprehend the primary truth of all religion requires some amount of religious feeling. And once really to apprehend these things at all is to be convinced of their truth in a real way which no arguments would make us do.

To realize moral truth at all puts a strain on a man's moral nature, tries of what stuff he is made. For it is of the very essence of moral truth that we fully apprehend it only when we obey it. If we do not try to obey it and act on it, if we take the easy and broad road of "moral supineness," we lose all hold of moral truth and of Him who is the life of it.

We all know what is meant by "the voice of conscience." To hear that voice at all is an act of faith more than of intellect. To hear it clearly and practically implies a very decided act of

faith. For consider what it contains: not merely an intuition of right and wrong, not merely a perception that this act is right, that act is wrong; not this only; no, nor merely a sense of duty, a conviction that we ought to do the right and to refuse the wrong. It is both of these—the perception of right and wrong and the conviction that it is our duty to do the one and to avoid the other. But it is something more—a conviction that behind the perceived duty there lies a sanction for it; something, call it a power or what you will—a something which will maintain the right, will befriend him who does it, and will avenge the violation of it. This is the distinctive, the peculiar element in conscience—the sense that there is that in it and behind it which will ultimately uphold its verdicts; something which will in the long-run bring it to pass that it shall be well with the righteous and ill with the unrighteous.

This voice of conscience with the sense that there is a power which will support it is something very different from any mere physical law. Fire burns; if we fall over a precipice we suffer injury or death. Here the consequence is visible and immediate. But the uneasy sense of wrong-doing points not to a present and visible consequence, but to a future retribution. And the conviction is not merely that certain consequences will follow, but that they ought to follow; that wrong-doing not only will be punished, but that it deserves punishment, which will somehow, at some time, be inflicted; a conviction that "we are responsible, and will be held to our responsibility."

This conviction rests on a pure act of faith. Our own personal experience does not warrant it. The experience of history does not warrant it. We see the law of righteousness partially fulfilled now; that is all. History shows a balance of evidence in favor of the conviction, or, as Bishop Butler puts it, the constitution of things shows on the whole a tendency to reward the innocent, to punish the guilty; but there is no complete proof that this tendency will ever be perfectly fulfilled. Nay, there are many contradictions to it. In this life evil-doers flourish and die unpunished, good men suffer and have no visible recompense. Experience does not prove that every man will be rewarded according to his works. If then we cling to this conviction in spite of all the anomalies we see, we do on faith, not

on intellectual proof. "Notwithstanding instances to the contrary which are flagrant and obtrusive, notwithstanding the bitter complaints of prophets, priests, poets, and historians, tho the righteous perish and no man layeth it to heart, men believe in a judgment to come, and their deepest moral convictions involve a principle which no experience can demonstrate, and with which much bitter experience seems daily to conflict."

The great denier of the validity of this act of faith, by which there is within man a conscience, a forecast of future judgment, And Professor Huxley has recently furbished is David Hume. anew his subtle argument. It runs thus: Are there visible in this world any marks of justice rewarding men according to their works? You say Yes. Then, Hume answers, justice operates here and is satisfied; you need not go to look for any future retribution. If you say No-Then, he answers, you cannot ascribe justice to God; or rather to your gods, for he puts his argument in the mouth of an Epicurean, seeing that they are careless about justice in this visible state of things. If you say both Yes and No, justice is partly executed here, partly not, then Hume replies. You have no warrant to extend the operation of justice beyond what you see it at present have, and to expect that it will be more perfectly fulfilled hereafter.

Or, as Mr. Huxley puts it, Nature—that is, this visible frame of things—is your only measure of the character of Him who, you say, created and upholds it. What right have you to suppose that he manifests his righteousness otherwise and more perfectly on the other side of Nature, if it has another side, from what he does on this side? Certainly none, if Nature—that is, the things we see—are our only measure of the character of God. But this is just the question in dispute. Shut out the warnings of conscience, confine yourself to sensible experience, and Hume's argument is unanswerable. Let in the voice of conscience, admit its witness, tho you cannot see or prove its truth, and then you are at once introduced into a wholly different, even a spiritual region, and vistas of future possibilities are opened up "which this gross world no sense hath to perceive, no soul to dream of."

Here, then, we stand at the great dividing-point where the two roads, the road of faith and the road of sight, part company.

Hume and his school, taking their stand only on what can be seen, on what we ourselves have observed, or on the experience of the past, reject all else, pay no heed to the intimations of conscience, and can arrive only at a code of expediency. Virtue, on the whole, seems to pay best in this world, therefore it is prudent to adhere to it. This is the road of sight which Hume and his followers travel. The other road, that of faith, accepts the forecast of conscience as true, and on the strength of it is prepared to go out beyond the guidance of mere experience—is convinced and is prepared to act on the conviction that tho within the range of our observation righteousness is not adequately rewarded, nor vice adequately punished, yet that they surely will be. On this conviction it takes its line, sets its face. not towards the seen, but towards the unseen, and calmly and confidently awaits the issue. This is the beginning of all real faith, the first of what have been called the ventures of faith. It is no doubt a momentous act, one which opens up an entirely new world—a world which, in the words of Hume, "subverts all the principles of the understanding, and gives a man a determination to believe what is most contrary to custom and experience." No doubt it is so, but it is the side which all prophets, all the best men, the great benefactors of mankind, have chosen. They have believed that right is stronger than wrong, that the good will vet conquer the evil, that there is a futurity before them in which all the wrong will yet be redressed, and in the strength of that hope have lived and worked and died.

I have spoken of the sanction which lies in the voice of conscience—the sense that there is a power behind it which will give effect to its behests. What is the nature of that power? Can we in any way divine its character? We have all lately heard much about a Power not ourselves which makes for righteousness. And the great recommendation of this strange formula was said to be that it hits the ground where faith or knowledge, Scripture or science meet, and reconciles these two often seemingly opposed partisans. I doubt if it will do so, if even the belief in this formula does not carry us as far beyond observation and experience as the highest principles of morality and faith do. But however this may be, one thing is plain enough. No mere law, no great blind, impersonal power, can

ever meet and vindicate that which conscience demands. What it craves is that the most discriminating and perfect justice should be done. But no influence which is not personal can ever execute complete judgment on the acts, the thoughts, the intentions. or the motives of a personal being. Human law, we see, cannot Its action is rough and inexact. Here too severe. there not severe enough. It cannot discriminate personal merits and demerits. No impersonal agency or power or influence can do so. Here, as elsewhere, it takes like to judge like. None but a personal being endowed with intelligence and morality like our own, only far higher and more perfect than ours, can enter into all the intricate windings, the delicate movements of mind, heart, and brain which determine the conduct of every human being. That is, that which gives sanction to the verdicts of conscience, that power which is moving close behind it, is no other than the living and personal God. As one has said, the movements are "the touch of God." It is no merely theological assertion, but the expression of the practical experience of all thoughtful persons, that, more than any formula ever invented by philosophers and moralists, better than Kant's Categorical Imperative, the finding of the awakened heart is expressed most simply, immediately, most truly in the words of that psalm which begins, "O Lord, thou hast searched me out, and known me; ... thou understandest my thoughts long before." more keen and sensitive the conscience is, the more it is driven to feel that it is not a mere law, no mere categorical imperative, no impersonal power or moral order, with which it has to do, from which its intimations come, to which they return; but a Living Person, akin to our own hearts, containing all that they do and far more. From its depths the soul cries out and appeals to such a Being, who works not by any mere hard and fast lines or mechanical rules, but who can take account of the "minutest circumstances of our condition, can make allowance for them, can have compassion on our weakness, can pardon our sins." Such the Being behind conscience whom the human heart craves, and on whom alone it can repose and be at peace.

It would thus appear that faith in the primary convictions of conscience will not stop short till it leads up to and finds rest in a personal God. That is, that a living and sensitive morality cannot stop short of real religion; that morality is, in fact, underlain by religion. "If the highest impulses of life are not to be balked, if the deepest dictates of morality are not illusive, some Being there must be who is at all events so far personal as to be able to deal justly with persons."

I am well aware that there are many who take another view, and who believe that a distinct and substantial morality can be built up without any reference to God or religion. And I know that there are men who are moral in practice and in principle and yet seem to have no sense of religion. It is not the interest of the highest truth to deny this, if it be so. Only we must add that such a view of the possible separation of morality and vital religion is at the best an imperfect one, and that the two sisters cannot be sundered without tears. For what are our best moral ideas—the idea of justice, for instance, or of mercy —but broken arcs of circles which do not complete themselves within our sight, but pass off on either side into mystery? They are like those broken fragments of the rainbow which you see on a stormy day, and which, incomplete as they are, always carry out thoughts directly to a hidden sun. There may be, there are, those who do not feel this, who do not feel that any moral truth once livingly felt carries them at once to a Personal Being as its Author and Upholder. But those who do feel this have at all events this great witness to the truth of their feeling, that He who of all who ever walked this earth was at once the most perfect Exemplar of spiritual morality and its greatest Vivifier among men, united the two elements indissolubly, and that in his consciousness to see a thing to be right and at the same time to be the will of God was one act. To him morality and the perceived will of God were identical.

It may perhaps have occurred to some that I have given no definition of faith. Nor do I intend to do so, but rather to suggest what its nature and action are. I have spoken of it mainly as trust, as a relation between persons, as confidence in character, as reliance on a person; that is, I have taken it rather on its moral, which I believe to be its most important side, than on its intellectual side, which seems to me comparatively subordinate. This has not generally been the view of theologians.

They have rather inclined to regard it from its intellectual side. According to Bishop Pearson's well-known definition, they have made it to be "an assent to that which is credible as credible." as an assent on the ground of testimony which seemed to them to be sufficient. And Mr. Wace, tho in the main portion of his work he has thrown himself on the moral idea of faith, has not done so quite consistently, but has here and there wavered, and has quoted with approbation Pearson's account of it, as tho it were satisfactory. If we take this, the intellectual view, then the living trust in a Person becomes subordinate, is only a means to "obtaining knowledge and ascertaining truths" which we could not otherwise obtain. According as we regard faith as an intellectual act, or chiefly as a moral and spiritual one, an entirely different view of the nature and object of revelation ensues. If faith be mainly an intellectual process, then the great end of revelation must be to communicate certain abstract truths about the Divine Nature or certain eternal principles of morality, and the character of the Revealer is valued mainly for the sake of the truths which he communicates. If we are to believe the truths revealed, then the character of Him who reveals them must be proved to be trustworthy. But if the great end of all revelation has been to reveal the character of God, as shown in his dealings with men, then we shall find in the Old Testament "not the promulgation of certain dogmas, but the revelation of God and of the way in which he manifested his presence in a long and special history of redemptive activity." In the New Testament we shall find one central object, the manifestation of the person of Christ and of God in him. makes all the difference in the world which of these two views of faith we adopt. If we take the former, then we are involved at every step in intellectual disputes, arguments about the nature of testimony, the credibility of witnesses, the criterion of the truth of the revelation, whether its inherent reasonableness or its agreement with other truths is already established. opened up a field of endless debate. If, however, we take the other view and regard the Scriptures, both old and new, as revelations of the Divine Character, and supremely of that character as summed up in Christ, then we are on solid and unassailable ground

—ground which commends itself directly to the spiritual interests of man, which speculation cannot shake, and in which practical faith finds an immediate resting-place.

This I take it to be the side to which Mr. Wace chiefly leans, even if he does not always hold to it consistently. For in one of his notes he remarks: "The question is not whether we think certain theological opinions more tenable than others, but whether we believe certain men to be more worthy to be followed and trusted than others." Above all, as he says, the fundamental law, the supreme motive power in Christianity, is trust in, loyalty, personal devotion to a Person, allegiance to Him who is the head of redeemed humanity.

Faith, then, is not to be valued, as theologians have too often valued it, for its intellectual product, for the knowledge of unseen things to which it introduces us. "The true goal is not a creed, but God in Christ; not things to be believed, but a life of living fellowship to be lived."

The moral view of faith as a personal relation, trust of persons in a Person, if it had been held consistently and without any wavering by Mr. Wace, would have given more clearness and directness to his third and fourth lectures, "The Witness to Revelation" and "The Faith of the Old Covenant." As it is, tho in the main he has clung to the moral view, he has not always held to it with a firm grasp, but has here and there allowed the intellectual view of faith, as the belief in testimony, the assent to things credible as credible, to come in and obscure the supremacy of the truer view. I shall now, however, notice some portions of the third and fourth lectures which seem to be in harmony with the view of faith as a personal relation.

It has often been set forth, by no one more emphatically than by the late Canon Mozley, that man must needs conceive of God through some medium, in that there are only two media through which it is possible for man to think of him. There is the medium of Nature and there is the medium of man. If we try to apprehend the Divine Being through the image of Nature we shall think of him mainly as the great First Cause, or as the Reality that is behind all phenomena. This way of conceiving of him soon becomes vague and intangible, and cannot permanently influence life and conduct, however much it may suit

speculative thought. It is towards this purely intellectual conception that philosophy always tends. If, however, man is the medium through which we try to conceive of God, it is in the moral part of human nature that we find the only clew which can guide our thoughts toward him. If we lose hold of this clew we shall never find another. If there is any link between us and God, any avenue up which our thoughts can travel to him, it must be through our moral affections, our sense of righteousness, goodness, and love; that is, we think of God as possessing, only in an infinitely higher meaning, whatever is best in ourselves.

This, from first to last, is the conception of God which is taken in Scripture-from the words "God created man in his own image" down to "And the Word became flesh." Scriptures are based throughout on a human conception of the Divine Nature, on a true anthropomorphism, but an elevated and elevating and entirely spiritual anthropomorphism. It is easy for frivolous wits to make a joke of this conception, to point to the exaggerations and the unseemly familiarities on which some divines have ventured on the strength of it, and to treat it with light mockery. But the principle in itself, reverently used, is one of the deepest and truest, lies at the bottom of all right thinking about things divine. It is this, that there exists a harmony between the human reason and the divine, that there is a link of true kinship between the moral nature of man and the nature of God, that, not in a mere figure, but in reality, there is a kinship between the nature of man's spirit and the spirit of God. This, which is the root-conception of Scripture, is also the faith of conscience, as we have seen, when it is rightly interpreted. The sanction which conscience points to, the binding power which lies behind it, is that not merely of a blind power, but of a Person, for it is only a Person who can deal righteously with persons, can adequately judge persons. And this, which is the Biblical conception from end to end, has been reached here and there by the most morally gifted men, even without direct revelation. Socrates attained to it, Plato taught it. But the unaided human reason of the race has never been able permanently to keep hold of that which a few chosen spirits have been able to apprehend as from afar.

The higher intimations of conscience are lights which could

not live in this dark world unless supplemented and supported by answering lights from above. The faith of conscience, if it was to live and become operative, required the support of direct appeals to it from without and from above; that is, of positive revelation. High and self-evidencing as the light of conscience is, could it have sustained the strain that this world of sense puts on it if God himself had not come to its aid by positive communications of himself, his character, and his will? Now this is a truth which rationalism is forever either flatly denying, at least attempting to pare away. All that Christians have hitherto held to be real communications from God it regards as only the natural fetches of the human intellect in its attempts to penetrate into the Divine Nature. It denies objectivity to the so-called revelations, and accounts for them all on subjective and natural principles; that is, in plain terms, it makes them to come from within ourselves, not from without. There is much tendency this way at the present time, and perhaps, if we are honest, many will confess that they have felt this tendency in themselves.

In regarding the Old Testament it makes all the difference in the world whether we consider it to be a record of the graduual advance which man has made by his natural faculties towards a knowledge of God, a record of the efforts of men to seek and to find God; or a record of the means which God has taken to seek and to find man. These two attitudes of mind are not only different, but entirely opposed.

Every one must feel how entirely opposed this is to the mental attitude of the writers of Scripture. In the Old Testament and in the New alike, law-giver, prophet, and apostle felt themselves to be the recipients of a message direct from God, the bearers of a voice which did not originate in their own heart and conscience, but a voice from without, coming from One who is supreme over the heart and the conscience of man. And yet it is to be noted that those Hebrew men who believed most entirely in those appeals from without were the very men of all the world in whom the inward moral convictions were strongest, in whom the belief in conscience and in God were absolutely at one, the one belief strengthening deepening and the other. That means, to the best Hebrew minds morality and religion, righteousness and God, were not only in harmony, but identical.

Mr. Wace's third lecture, that on "The Witness to Revelation," concludes with some very searching reflections. They, he says, who are most sensitive to hear the voice that speaks in conscience will be found to be also most apprehensive of the voice that speaks in revelation. As men grow spiritually enfeebled they cease to appreciate the authority of revelation. The real obstacle to faith is this, that it lays a severe moral strain on us, and we shrink from it. The practical conclusion of the whole is this, that if faith in our day has grown languid, and is to be revivified, it must be by an appeal to the conscience still more than to the intellect of man.

The fourth of Mr. Wace's lectures deals with the main elements of the faith of the Old Covenant. Tho it was one of the Old Testament prophets who sfirst said "the just shall live by faith," and tho prophets and righteous men did live by faith in that old time, yet it was in the New Testament that the word faith, as meaning a personal trust in a Person, attained its full proportion and started into sudden life. The meaning and the importance of it were then only fully recognized when the true and adequate object of faith was given and was vividly apprehended. It then became firm in grasp and definite in outline, as it could not be till the Word became Flesh and tabernacled among us. We have seen that trust in persons is the source of whatever is noblest and most devoted in human nature. no mere man was adequate to draw out for the hearts of his fellow-men the full compass of this latent energy. Neither could moral law nor spiritual ideals do so. These are too vague, too impalpable, "to open and unlock the heart, to elicit the ten thousand senses which belong to us, and through which we really live, to answer to the mysterious assemblage of thoughts and affections which the soul has within it." One alone was adequate to this, even He who in the fulness of time came to be all things to the hearts that trust him. When he came, all the higher impulses of humanity seemed exhausted. Trust, hope, aspiration, self-devotion, finding no sufficient object, had died down within the hearts of men and yielded place to despair. Our Lord came to rally the scattered forces of good, to call forth, as it had never been called forth before, that faith in a higher life which had nearly gone dead, and to be henceforth

the centre and the source of trust and hope to universal man. And ever since he came, whatever of purest, noblest, best, has appeared amongst men may be said to hold of him and his direct or indirect influence. It is remarkable that in all his teaching he not only gives faith the first place before all other virtues, but demands a quite unlimited faith to be put in himself. He was not in the least content to be accepted merely as a Moral Teacher. From the very first he demanded a faith in himself which far outwent this. He asked his disciples to place their whole fate in his hands, and to trust him through agony and death.

It is usual with those at the present day who would fain regard our Lord as merely a great Moral Teacher, and Christianity as only the promulgation of a purer moral code, to appeal to the Sermon on the Mount as containing all that is essential in the Gospel. They are very profuse in their praises of it, and in their exhortations to us to stick to its practical precepts, and not to mind the transcendental additions which, as they say, theologians have made to its simple morality. But is the Sermon on the Mount all so simple and so easy a matter as these men would make it? Was not the ground for that discourse prepared by "an intense moral illumination, by a call to repentance more solemn and penetrating" than the world had ever heard before? When our Lord appeared, "he, like his forerunner, laid the foundation of his work in preaching repentance." "He probes the hearts of his hearers with a depth and a severity which lay bare the very recesses of the soul." Mr. Wace has well said: "It is one of the strangest features of rationalizing writers that this aspect of the Sermon on the Mount is so little appreciated by them. They applaud its 'sublime morality;' they condescend to pronounce that, in their opinion, no teacher has ever soared to such a height, and they would fain represent its moral teaching as the sum and substance of the Gospel. But unless a man be made in some other mould than his fellows. it is wonderful that he can read the Sermon on the Mount without trembling. In proportion to the beauty and the force of the moral truths it declares is the spiritual and moral ruin it reveals among us, and the condemnation it pronounces on every human soul. 'Whosoever shall be angry with his brother without a cause shall be in danger of the judgment.' 'Whosoever looketh . . . ' 'If thy right eye offend thee, pluck it out, and cast it from thee.' The laws of Sinai are as nothing compared with this sword of the spirit, discerning the very thoughts and intents of the heart, and denouncing the severest judgments upon mere words, looks, and inclinations. The loftier and more spiritual the standard, the more utter appears our failure to approach it, and the more disastrous must seem the consequences of our sins. . . . The wrath of God is revealed in that discourse with a terrible calm, which leaves a man desperate of all resources in himself, and compels him to cry for deliverance from the body of death and evil which encompasses him."

Those who fancy that by confining themselves to the Sermon on the Mount they can keep in the region of mere morality and get rid altogether of the theological element, have they ever considered how that whole discourse is interpenetrated with the thought of God? At every step of it direct reference is made to the will and character of God; each successive precept is underlain by it. From beginning to end it is illuminated by that idea.

We are taught to love our enemies. Why? That we may be the children of our Father in heaven, who is kind to the unthankful and to the evil. We are taught our alms are to be done in secret, and the motive is, the Father which seeth in secret shall reward thee openly. The same is the encouragement held forth to sincere prayer, to forgiveness of injuries, and so on throughout all the other precepts. The one strength and encouragement given is the thought of God and his willingness to help As has been said, the teaching of that discourse, with its censures and demands so penetratingly severe, would have been cruel had it been addressed to men unaided and in their natural But it is softened and rendered tolerable by the condition. gracious words, "Ask and it shall be given," and by the promise that our heavenly Father will give the Holy Spirit to them that Even in the Sermon on the Mount, then, He who teaches it bases his every word on the faith in God's presence. It is saturated with the thought of God. What then becomes of the fancy that it is pure morality divorced from theology? And He who spoke it, does he make no claim to be other than a moral teacher? Who is He who speaks thus: "Many will say to me in that day, Lord, Lord, have we not prophesied in thy name?... Then will I profess unto them, I never knew you"? Can He who claims for himself this position in "that day," the great day of reckoning, be a mere man? Had he been only this, he would have been the most presumptuous and self-deluded man of whom there is any record. All this is so plain and obvious to ordinary persons that it may seem to them that in dwelling on it I am almost repeating truisms. They are not probably aware how persistently some of what are called the leaders of thought in our day have labored to persuade the world that the Gospel is nothing more than pure moral precepts, and our Lord himself only an enlightened moral teacher.

For instance, in the face of this, the author of that wellknown book "Supernatural Religion" ventures to assert "that the earliest teaching of Jesus recorded in the Gospel which can be regarded as in any degree historical is pure morality almost, if not quite, free from theological dogmas." Yet only two pages afterward the same writer states, wholly unaware of his own inconsistency, that Christ's teaching "confined itself to two fundamental principles—love to God and love to man." As if the precept to love God with all the heart and soul and mind implied no theology! as if it did not, indeed, involve the whole of theology, the belief that God is; that he rewards those who diligently seek him; that, in spite of all the darkness and unrighteousness there is in the world, he is still worthy of our entire trust and love. No theology, indeed, in this! To believe this much demands the fullest stretch of faith of which man is capable. After accepting these fundamental beliefs, all else is comparatively easy of acceptance.

Renan, too, falls into the same inconsistency—first asserting that "we seek in vain for a single theological proposition in the Gospel," and then that "a lofty conception of the Divinity is in some sort the germ of our Lord's whole being."

Even the author of a less extreme book, "Ecce Homo," is not free from the same inconsistency. The object of his inquiry is to answer the question, "What was Christ's object in founding the society which is called by his name, and how is it adapted to attain that object?" And yet he goes on to assure

us that in his book "no theological questions whatever are discussed:" that is, the author of "Ecce Homo" assumes at the outset that our Lord's object and method excluded all theology. Indeed, this is the primary assumption which underlies all attempts to explain away the Christian faith, to eliminate from it all that is mysterious and miraculous, and to account for it on purely natural principles. As Mr. Wace says, "Around the question whether, and in what manner. Christ revealed God, the battle rages, and to this it continually returns." Men assume that truths are simple because they are simply expressed. commandment to love God with all the heart and soul and mind and strength—what could be simpler, it is asked, than this? No doubt the words are simple—they are all mere monosyllables. Yet in these few monosyllables, simple as they sound, our Lord based his whole teaching on that truth of theology which is at once the loftiest and the most profound we can conceive.

The greatness of the demand for faith which our Lord made on his first hearers, and the immense prophetic power which he claimed for himself, are seen conspicuously in the parables in which he announced the advent of the kingdom of God, its fortunes and its destiny. The words of those parables are so familiar to us that it is not easy to read them with fresh eyes now, and to imagine how strange they must have sounded to those who first heard them. He announced that a kingdom had begun on earth which was to change the face of the whole world; that he himself was the Life and the Ruler of that kingdom: that from the smallest beginnings, a grain of mustardseed, it was to become a great tree which would overshadow the world; that this kingdom would effect an entire revolution in the moral and spiritual condition of man; that they, his disciples, poor and uneducated men, of no account, were first to revolutionize their own lives on the faith of it, and be set at variance with all the world, and that then they were to be made the instruments which would carry this revolution to the ends of the earth. What a power of faith in his one mission did it require to make such a prohecy at that age, and how great a faith did it demand in those who should believe what he said and stake their lives on that prophecy! All visible experience

was against its realization. He who made the announcement had nothing to offer them in this world but labors, persecutions, the loss of all things. What faith did it imply to accept these things, with no earthly recompense in store, nothing but his word to assure them of ultimate victory and of an eternal reward! We see not as yet the full end of that prophecy; but we see enough in the work which the Christian church has done on earth, and in the still living power of Christ, to convince us that it has been in a large measure fulfilled.

Again, along with the demand for faith in himself which our Lord made on others, think of the faith by which he himself lived and died.

One cannot, I think, be'wrong in assuming that even by those who do reject his Divinity, our Lord is admitted to be "the supreme ideal of all that the conscience and the heart of man demand." This admitted spiritual perfection, on what was it founded? Was it merely as a good man that did his works and spoke his words? Surely it is but reasonable to take his own testimony as to the power in the strength of which he did these things. Everywhere he insists that it is not by his own independent power that he lives and works; that in all he does he is carrying out the will of another and revealing his mind and character. Everywhere he disavows either the right or the power to act independently. "I can of mine own self do nothing." This, whether expressed or only implied, is the ground-tone of his whole life. From first to last he identifies his work absolutely with doing his Father's will and revealing his character; and nowhere more than in the final crisis of his Throughout the Passion all his words are filled with the sense of his Father, and in the Crucifixion he bows in absolute submission to his Father's will.

The question then naturally arises, Are we to allow Christ's moral perfection as far as we can judge of such a thing, as far as we can see and understand him? And are we not then to trust him when he tells us of that which we cannot see, his consciousness of his oneness with God the Father, his witness to the Father's will and character, and his witness to the eternal world, and to our close relations to it and our destiny therein?

When he speaks of these things, he does so under the sense of the most tremendous responsibility ever realized on earth, with the eye of his soul fixed on his Father, and at every moment calling God to witness to the truth of the words he uttered. If, as far as we can apprehend his character, we feel him to be perfect in truth and goodness, shall we not trust him when he utters his own deepest consciousness about those things which transcend all understanding of ours?

This is the claim he makes, and reasonably makes, on our trust; these are the foundations on which his demand for our faith are laid.

Ist. The very thought of him seriously entertained awakens the conscience of men, as nothing else can do, to a sense of the moral evil and the weakness that is in them.

2d. He brings them through contact with himself into the presence of his Father, the God of light and truth.

3d. In that awful presence he declares himself to be their Lord and Saviour, and bids them trust to him for forgiveness and for all spiritual life. It is a matter of trust, not of proof. It is to his assurance that the soul has to commit itself for time and for eternity.

I have thus tried to condense what seems most valuable in Mr. Wace's fifth lecture, that on "our Lord's demand for faith." There are three more lectures on the faith of the early church, of the Reformation, and of the Church of England. But on these I need not enter.

It may have been observed that I have not attempted to define metaphysically what faith, as an act of the soul, is, but have rather spoken of it as it shows itself in operation, and of the objects on which it lays hold. All remember the description of faith in the Epistle to the Hebrews as "the giving substance to things hoped for, the testing [putting to proof, bringing to conviction] of things not seen." Men speak of the faculty of faith as they do of the faculty of judgment. It is truer to say with Julius Hare that "every genuine act of faith is the act of the whole man, not of his understanding alone, not of his affections alone, not of his will alone, but of all three in their central aboriginal unity." And thus faith becomes the power

"through which the spiritual world exercises its sway over man," and thereby enables him to overcome the world of sin and death."

Then as to its objects, they are diverse and manifold, but they all have this in common: they are unseen, and they are moral in their character. It manifests itself by trusting to these, and preferring them to things seen and material. We saw that faith shows itself in the most obvious way in trusting to the character of our fellow-men, putting confidence in each other. And on faith in this sense we may say that all society and common social intercourse, not to speak of friendship and affection, are built. Again, it shows itself in the life of individuals by the aim or end which each man sets before him. the things which he lays to heart and prefers, which he makes the guide of his life. Does he choose for himself material goods, wealth, bodily comfort, or even the honors of this world and the praise of men? or does he desire most to be upright. pure, unselfish, loving? In the choice of these last faith is seen. Again, as we saw, all morality is founded on faith. A man cannot be thoroughly truthful except by a strong exercise of it. Further, to listen to the intimations of our natural conscience. to act on them, to believe in the forecast which conscience contains that its verdicts will one day be fulfilled and perfect righteousness executed, this is a strong exercise and trial of faith, and it is in this exercise of it that the thought and conviction of God is most intimately brought home to the soul. For it puts a great strain on the moral nature to believe in a future and perfect retribution, in the face of the visible contradictions of it. It is as The Living Being who is behind conscience, and reveals himself in its sanctions, that God primarily makes himself known to men. So embedded are we in things visible, and overborne by them; so severe, indeed, is the strain which this belief puts on human nature, that a few only, and these the elect souls of earth, have been able to live in the faith of conscience—Socrates, Plato, Epictetus—without the aid of some external confirmation. The prophets, and the best men of the Jews, found this in the special but partial revelations which they had. But it was only when Jesus Christ was manifested on earth that a fully adequate and perfect object was given for faith to rest in. He came to

the rescue of man's moral nature, which otherwise would have been overborne in the conflict with the powers of this world. How he came to the world's aid, by what means he awakened and reanimated the human conscience well-nigh dead at his coming, and brought "the remedy both for guilt and for moral impotance," all here know well enough. "I need not go into truths so familiar to all men in a Christian country." As I have said, it puts a great moral strain on a man to live at all by faith in this world. But it is not in believing the higher truths of Christianity that the chief stress of the strain lies, it is in believing the first moral truths which are necessary as a preparation of any religion. To take the moral and spiritual view of life at all, this, if we understand it, is the real difficulty. It is so easy, so natural to give up all moral effort and to go with the stream, to live by sight and sense, either taking whatever ease and sensual pleasure the world offers or, if we wish to be more intellectual, taking up a philosophy founded only on sensible experience. As it has been well expressed: "The visible world seems made for the enjoyment of just such a being as man, and man is put into it. He has the capacity for enjoyment, and the world supplies the *means*. How natural this, what a simple and pleasant philosophy, yet how different from that of the Cross!"

To believe and act upon the hidden whispers of conscience when these go against our natural likings, and also against the opinions of those around us, those with whom we wish to stand well, this it is that tries a man, this demands faith. It is faith, indeed, in its first steps, in its lower stages, but it is just here that the pinch really lies, not in believing the higher and more mysterious truths which Christianity reveals. To accept as literal truths what we feel within us—the obligation to live by the highest standard, and the sense that we utterly fail to do so the consequent sense of failure, guilt, moral helplessness, these are the primary teachings of conscience, and they are at the same time the severest trials to faith. Those who accept these intimations have in them the due preparation for Christianity, and all else follows almost naturally. To those who turn aside from these searching heart-truths Christianity gradually becomes a sealed book. But when persons are once convinced that there is deep within them a call to be what, in themselves, they cannot be, that as regards the attainment of moral perfection, or even of inward cleansing, they are helpless, and when to persons with this experience the life and character of our Lord is presented, they begin to feel that here, if anywhere, is what they need, that nowhere else in the universe is help, strength, hope for them. Even after they have learnt this innumerable questions may arise, both with regard to themselves and their fellowmen, to which they can give no answer. But from these they can turn away without despair if only they can fix their eye on him, and feel that in spite of the burden of the mystery all things may be hoped for a world in which such a life was lived, for which such a death was died.

J. C. SHAIRP.

PRACTICAL USES OF ELECTRICITY.

THE introduction of electricity into the business of life is probably to be the most noteworthy feature in the history of economic civilization during the last half of the nineteenth century. The latter part of the eighteenth was characterized, speaking broadly, by the invention of the steam-engine, the substitution of machinery for hand-work, and the development of the factory system of manufacture; the first half of our own century, by the introduction of the railway and the steamship, and the commercial phenomena which necessarily resulted from such improvements in the means of transportation: similarly, unless all signs fail, the present half-century will hereafter be memorable as the period when man subdued to his service the mysterious power of electricity. It is true that before 1850 science had discovered nearly all the facts and principles upon which the present industrial applications of electricity de-The galvanic battery, the magneto-electric machine, the telegraph, and the electroplating bath already existed, and the two latter were beginning to be used commercially. But at that time the world would hardly have felt the difference if by some strange accident it had suddenly lost the use and knowledge of Thirty years have changed all that. Imagine that this morning every telegraph-wire had disappeared, every galvanic battery had lost its virtue, every dynamo-machine was stopped—that all communication and operation by means of electricity had come to an end; how profoundly the whole community would be affected before nightfall! When a storm, a few months ago, prostrated many of the telegraph-lines around New York City, business came almost to a standstill for the time. And while electricity is already so important a factor in our business life, it is impossible to doubt that by 1900 it will hold a far more dominant position. Every year, almost every day, brings to light some new application of this agent, and its use develops with continually increasing rapidity.

We propose in the present article to discuss the subject in a general and, so far as may be, untechnical manner, for the purpose of giving our readers an idea of the extent and variety of the existing applications of electricity to the arts of life, and the reasons for expecting their rapid multiplication in the near future. We do not aim at scientific completeness, and we shall not scruple to treat with disproportionate brevity those matters with which intelligent people are already familiar, in order to gain space for other topics at present less generally understood.

And first, by way of introduction, a few words as to the nature of electricity—a confession of ignorance. All that science can do at present is to define it as the unknown cause of certain effects which are observed when a piece of amber (electron) is rubbed—an observation dating back two thousand years. now known, of course, that not only those phenomena, but a whole multitude of others, depend upon the same cause. As to the real nature of the cause we have no certain light as vet: we cannot tell whether electricity is some peculiar kind of substance, or some modification or motion of ordinary matter. In the case of heat, which for a long time was thought to be a substance and called caloric, experiment has settled the question, and proved it to be merely a mode of motion. In reference to electricity no such decision has yet been reached. No phenomena have thus far been discovered which absolutely negative the notion that it may be a subtle, imponderable fluid or fluids, endowed with certain peculiar faculties of attraction and repulsion, and more or less freely circulating among the particles of bodies. According to this view an electrical charge consists in the collection of some abnormal quantity of this substance in the charged body; an electrical discharge is, then, the actual transferrence of a quantity of the fluid from one body to another, and an electric current is such a transfer continuously progressing.

Another view, however, seems to carry, at present, a greater weight of opinion in its favor—that, namely, of Maxwell. Ac-

cepting the idea of a medium filling all space (the luminiferous ether of optics), he regards an electric charge as the establishment of a peculiar state of strain among the atoms of the charged bodies, and in the medium between them. A discharge consists in the sudden relief of this strain by a giving way of the intervening medium, without necessarily implying any transfer of substance through it; and an electric current is a rapid succession of such discharges. In its application the theory is mathematically difficult, but it explains many facts which the fluid theories fail to touch, and opens the way for the establishment of relations between electricity and the other physical agents, especially light and heat. It is to be expected that the progress of science and mathematics will in due time furnish some experimentum crucis which will discriminate between the two hypotheses, or not impossibly upset them both. There is certainly great probability that some hypothesis will yet be found which will include in one general theory all the physical agents-light, heat, gravity, and chemical affinity, as well as electricity and magnetism. But the hour and the man have not vet come.

We have confessed ignorance as to the absolute nature of electricity; but the reader must not suppose, therefore, that there is any corresponding obscurity and uncertainty as to the phenomena it produces, and the laws which govern them. We may not know what electricity is, but we can measure it in "farads" and "webers" as accurately as water can be measured in "quarts" and "inches." We can express electrical pressure in "volts" as precisely as water-pressure in feet of "head;" and we can describe the resistance of an electrical conductor in "ohms" as definitely as the frictional resistance of a pipe of given size and length upon a stream of water flowing through it can be expressed. It is no more necessary to know the nature of electricity in order to deal with and utilize it, than it is to know the nature of water in order to make it drive our mills; altho, of course, the more we learn about either the better we can manage it.

Unquestionably the most important of the practical uses of electricity hitherto developed is the communication of intelligence between distant points; not only in the telegraph proper,

and the telephone, but in all the various signalling arrangements where electricity is made to serve as the nervous system of a complicated organization, co-ordinating the action of the different portions and bringing them under central control.

The history and operation of the telegraph is so familiar to all intelligent persons that we need not spend much time in its discussion. Tho not yet forty years old, it has already become such an essential part of our civilization that its loss, as has been said, would instantly paralyze the life of the world. All the great operations of business depend upon its use. Our railways are run by its aid, and without the wire the carrying capacity of any important road would practically be reduced at least one half, because trains could no longer be moved at small intervals without constant danger of collision.

There may be a question whether there is really any advantage to mankind in the rapidity with which "news" now makes its way in the world; but there can be none that the fact is a most important, even a controlling, element in determining the differences between the characters of the men of the eighteenth and nineteenth centuries. The only reasonable expectation that our people, spread over so vast and various a country, will remain permanently one nation, hangs upon the hope that our modern means of communication will so intermingle us and our ideas that we shall measurably be freed from provincialism and sectional dissensions by becoming personally acquainted with each other, and having presented to us from day to day the same material for thought and feeling. Thus boundary-lines virtually contract and a continent becomes a county.

The magnitude and extent of the telegraphic system in the United States alone is something amazing; New York City itself has about 6000 miles of telegraph-wire, and there are nearly 300,000 miles in the whole country—enough to reach from the earth to the moon and a long distance beyond, since our satellite is only 240,000 miles away. Many of these, too, count for two or four apiece, being worked "duplex" or "quadruplex;" i.e., in the language of the electrician, they have associated with each of them several "phantom" wires, which, having no actual existence, yet answer all the telegraphic conditions of metallic conductors. We know of nothing more ingenious or

surprising than the methods (for they are various) by which a single wire is thus made to serve the purpose of many, in transmitting, without confusion or interference, several messages at once, some in one direction and others in the opposite.

We have not before us the exact statistics of the subject, but the whole length of telegraph-wire on the earth's surface and beneath its oceans cannot be far from a million and a quarter of miles. Five years ago it was reported at 978,000, and since then the erection of new lines has been going on faster than ever before.

And not only has the length of the lines been growing, but their efficiency also. We have spoken of the contrivances by which one wire is made to answer the purpose of three or four, but besides this the instruments and methods of telegraphy have been improving, so that a quadruplex wire of to-day, worked with some of the "rapid telegraph" apparatus, is capable of doing at least ten times as much business as one wire could have carried ten years ago.

How far the telegraphic system of the world will be extended in the future it is impossible to predict. Wherever civilization goes the wire will go, of course; and, so far as can be judged, in lands which now have the telegraph the lines will be greatly multiplied, tho the competition of the telephone will necessarily be felt. It is quite within the range of possibility that, so far as epistolary correspondence is concerned, the mailbag may some time be entirely superseded by the wire. Perhaps it is hardly likely, however, since the newspaper and other printed matter will always demand a postal system, and so long as that exists letters will probably continue to be written and sent.

We have alluded to the competition of the telephone. It is very difficult, however, to draw the line between the telegraph and telephone, and in England the government, which has bought out the private companies and works the telegraph-lines as a part of its postal system, refuses to recognize the distinction. If there is a distinction to be maintained at all, it would probably lie in this: In telegraphing, the sender and receiver of the message employ a third person, and perhaps several persons, to transmit the message between them; the process is analogous

to that of sending a package or letter by a conveyance. In telephoning proper, on the contrary, the sender and receiver converse directly, without the intervention of any one. The apparatus is virtually only a speaking-trumpet, and the operation is analogous to shouting across an interval of space. course in this view of the matter the peculiarity of the instrument itself drops out of sight. Should the telephone be so far improved that it will work easily over distances of hundreds of miles—as it probably will '—then it is likely to displace most of the present telegraph-instruments at the minor stations, simply because it can be operated by any person, without requiring the peculiar skill now necessary to send and read a telegraphic message. In railway telegraphy especially its satisfactory introduction would be a great gain. For through business, however, it is probable that some form of rapid-telegraph instrument, more or less analogous to those now in use, will be retained. because such instruments can be operated with multiplex wires, and are capable of transmitting in an hour many times the number of words which could be uttered by the most rapid speaker.

It is not easy to form an idea how much the direct use of the telephone is likely to extend. In our cities and large towns it must, of course, find its principal use, and it is very probable that the time will come when, as a matter of municipal organization, every house in every considerable city will have its telephonic connection with some central station. The number of purely private lines for purposes of business and friendship is sure also to be very great: it is already large, and would by this time have become vastly larger but for the heavy royalty. Five or ten dollars a year is more than most people are willing to pay for the mere use of an instrument which can be constructed for one or two dollars.

It is perhaps not impossible that some forms of the telephone may be used for other purposes than the mere transmission of con-

¹ Since this was written it has been announced that Herz, in Germany, has made an improvement in the telephone by means of which, without using batteries of any inordinate strength, he has been able to converse satisfactorily over circuits exceeding three hundred miles in length, and that, too, when part of the circuit was a submarine cable. We have not yet seen any authentic description of his invention.

versation. Mr. Edison's "loud speaking" telephone is certainly a most extraordinary instrument: we shall never forget the sensation of hearing it for the first time. Several of us were listening intently, with telephones of the usual pattern, to the voice of the person who at the other end of the line was reading something to us from a newspaper. We could hear him well enough when everything was perfectly quiet, but it required close attention. Suddenly the little chalk cylinder of the new machine was put in motion, and at once the whole room was filled with the voice of the reader, as distinct as if he were in our midst, and much louder and more resonant; the tones were perfectly clear, but a little strange, just enough so to heighten the sensation. With an instrument of this kind a speaker of feeble voice could address an audience of any size, and at a distance of many miles, far more effectively than if he were before them, at least so far as the mere utterance of his ideas is concerned: and he could speak not only to one audience, but to several at the same time if the occasion demanded.

The use of electricity for the communication of various kinds of signals which can hardly be considered as telegraphic is very important and extensive. Take for instance our burglar-alarms, and the electric annunciators which in our hotels and steamboats have superseded the old system of bell-wires. In many kinds of textile machinery also, where it is important that the breaking of a thread or any derangement of the machine should at once arrest the movement, electricity is found to furnish the most prompt and reliable means for effecting the purpose. Fontaine mentions an instance where the application of such a device has reduced the necessary number of operatives from one for each knitting-frame to one for ten; four operatives aided by electricity taking the place of the forty previously needed.

In general, it may be said that wherever the nature of an organization or machine is such that something analogous to a nervous system is required to make it efficient, electricity supplies the want better than anything else, at least if the distances to be covered are at all considerable. The organist sits at his keyboard, and by the help of electricity manipulates pipes placed at any distance and in any position determined by the architect. The astronomer, without moving his eye from the

instrument, communicates his observation to the chronograph by a tap of the finger, and secures a permanent record of the moment.

The clock of the observatory at Washington sends out its beats each noon over many thousand lines of telegraph-wire, and drops the ball which furnishes our principal seaport with its standard time. Several other observatories in this country do the same thing to a more or less limited extent, and in Great Britain the system is far more complete and thoroughly organized than here. The Greenwich signals go to almost every important city in the kingdom, and all the railroads are run by Greenwich time. In other parts of Europe, in Germany and France especially, the system is almost equally prevalent, and is gaining ground continually. In many cases it is not considered enough to send such time-signals once or twice a day merely. The beats of the standard clock of the Cambridge observatory are transmitted continuously to some twenty different stations in Boston, and there is a similar time-service in New York, which furnishes to the subscribers the beats of a standard clock. Many systems of electric clocks are also established in our railroad-stations and elsewhere, the clock-face being controlled by the action of a distant timepiece, moving its hands either continuously or at stated intervals. In Paris a similar system has been introduced on an extensive scale within the last few months, at the expense of the municipal authorities. The standard clock of the national observatory is connected by special lines with about thirty "horary centres." At these points are placed clocks the pendulums of which are continuously controlled by impulses sent every second from the observatory, and they in their turn distribute their beats to numerous stations in the vicinity. The whole city is thus supplied with time uniform and correct to the second.

It would take us too far from our immediate purpose to discuss here the feasibility and advantages of a uniform time over the whole extent of our country—uniform, that is, as to its minutes and seconds, the hours being varied where necessary, so that the standard railroad and business time should nowhere differ more than half an hour from the true local time. There are some obvious objections, of course, but there is little doubt

that they will ultimately be overruled in view of the importance of an authoritative standard, a necessity—hich will be felt more and more imperatively as the means of communication multiply and grow more swift. It is not unlikely that the system may even reach beyond the limits of a nation, so that all the English-speaking world at least will come to live by Greenwich time—by telegraph, of course, if at all.

It would be impossible, and it is not necessary, to enumerate all the different forms of signalling apparatus—fire-alarms, watchman-inspectors, and such—which depend upon the use of electricity for their efficiency. It is enough to say that contrivances of this kind are multitudinous, and many of them are of great importance and in extensive use already.

And as to future inventions we may lay down the fundamental principle that by means of electricity it is always possible for a person to effect at any distance any mechanical operation which he could perform if he were on the spot. It is a mere question of expense: the number of telegraph-wires needed may be so great, and the cost of the apparatus so high, that the operation would not pay; but so far as possibilities are concerned the human arm is now virtually as long as the electric wire. I can sit in my study and steer a torpedo-boat in New York harbor, or ring the bells of Boston, or play the organ in St. Peter's, or explode a mine in China, or write a letter on the desk of my correspondent in Constantinople. Just such things are done now every day, and will be done more frequently and easily hereafter.

We ought not to pass, with a bare allusion, the use of electricity in the management of explosives, for it has greatly increased their efficacy in military and mining operations. We all remember, of course, how, a few years ago, the touch of a little child's finger blew up the reef in Hell Gate. Any other known method of firing the mine would have deprived it of much of its power, because it would have been impossible to secure the simultaneity upon which the efficiency of the blast depended. At present nearly all the powerful explosives now in vogue are used only in connection with electric fuses of some kind or other. For safety, convenience, and certainty of action they are as immensely superior to their predecessors as are the new explosives themselves.

Electricity finds another extremely important practical application in a widely different range of uses—by means of its effect upon chemical reactions. As typical may be mentioned the electroplating industry, the electrotype, and the use of electricity in certain metallurgical and chemical operations.

We are not sufficiently familiar with the subject to be able to give statistics in respect to these matters, or even to enumerate all the different applications of electricity in this branch of technology. Every one knows, however, that the business of electroplating alone is something enormous. The great firms of Elkington, in England; Christofle & Co., in France; and the Meriden and Providence companies, in this country, not to mention others nearly if not quite as important, employ operatives by the hundred and deposit silver and gold literally by the ton. In the magic bath the precious metal is torn off, atom by atom, from the shapeless lump, and transferred to the surface it is to clothe and beautify as if by invisible gnomes, working with inimitable speed, deftness, and docility.

The same agent is employed, and the same principles are involved, in the processes by which wood-cuts and engravings are copied and the pages prepared for printing. The plate or block upon which the artist has expended his skill is not subjected to the wear and tear of the press, but fac-similes are made in any necessary number by means of the electrotype. These endure the rough service, while the original is kept in reserve ready to be recopied whenever wanted.

One curious application of the process is in the manufacture of the so-called compound telegraph-wire, which consists of a central wire of steel covered with a coating of copper. This coating is deposited upon the steel by galvanic action, while the wire is drawn continuously through a long trough containing the necessary solution.

Electricity is used also in certain processes for the reduction of copper and other metals from their ores, and in the manufacture of certain chemicals extensively employed in the arts.

A few years ago the only generator of the electric current in ordinary use was the galvanic battery in some form or other. For all telegraphic purposes it answered very well, and fairly for the processes of electro-chemistry. But it was always a costly

and troublesome affair when currents of any great strength were needed, and is now practically superseded in all such cases by mechanical generators, which depend for their efficiency upon the rapid motion of coils of wire in a magnetic field. The machines of twenty years ago were cumbrous and inefficient; but in 1866 Wilde, in England, constructed one involving several new principles and possessing a power before undreamed of: it is the type and original of many of the best machines now in use, altho it has, in the development, received from Varley, Wheatstone, Siemens, and others numerous alterations and improvements which have greatly increased its efficiency. In 1871 Gramme, in France, introduced another machine of peculiar construction, which was at once recognized as superior to anything then known; and it still keeps its place, hardly surpassed by any even among the newest.

The machines best known in this country at present are those of Gramme, Siemens, Brush, Weston, Maxim, and Edison, tho they have many rivals, some of them perhaps their equals. Any of those named, when driven under the conditions for which they were designed, are most effective converters of horse-power into electricity, the best of them having been shown by careful experiment to realize an efficiency of nearly 90 per cent; that is to say, if the electric current produced by the machine is made to heat a coil of wire immersed in water, it is found that the quantity of heat developed is 90 per cent of that which would be theoretically equivalent to the energy expended in driving the machine.

A word as to the expression "efficiency," so variously used as to have led to much ambiguity. As we have just employed it, the term denotes simply the ratio between the power expended in turning the machine and the useful effect produced. In this sense of the term that machine is most "efficient" which gives the greatest amount of electric work in return for each horse-power of propulsion, without regard to the magnitude or expense of the machine itself. Sometimes, however, the matter is discussed with reference to the cost of the machine required to produce a given current, and in that case, tho only loosely speaking, the most "efficient" machine is the one which is capable of giving the most powerful current for the money ex-

pended in building the apparatus, without regard to the expense of driving it. Again, since the strength of the current produced depends upon the arrangement and size of the wires through which it circulates, it has been inquired what arrangement of the circuit would enable us to get the greatest amount of electric work from a given machine; or, vice versa, what machine will produce in a given circuit the maximum effect: and in this sense the most "efficient" machine is the one which will do the most work under the circumstances of the case, and that is the most "efficient" circuit which will realize the most work from a given machine; the expenditure of driving energy being lost sight of in this case also, as in the preceding.

Of course the most efficient machine in a commercial sense is the one which will give the greatest effect at the least cost; the cost being made up of two items—one, the expense of the driving power; the other, the interest on capital and the allowance for wear and replacement. In these days of low interest it will evidently pay to aim at durability and economy of power, even at a considerable first cost. Generally speaking, it may also be said that it is much cheaper to generate electricity in large quantities than in small. A machine which consumes directly the whole energy of a hundred horse-power steamengine will produce its current for considerably less than it would cost to run twenty machines each using five horse-power, provided always that profitable employment can be found for such a tremendous current; for it is possible to conceive of a Great-Eastern among dynamo-machines, one too large to pay.

The ability to produce by means of such machines currents of any desired power, and at a reasonable expense, has opened for electricity an enormous range of uses which were out of the question in the days of galvanic batteries. It is quite within bounds to say that to produce the current which operates one of the electric-light circuits on Broadway by means of a battery would cost from ten to twenty times as much as it does to generate it in the present manner by means of a steam-engine; and not only would it cost more, but it would be quite impracticable, except by most extreme precautions, to keep the current running without interruption as much as twenty-four hours at a time.

It need hardly be said here, for every one's thoughts are more or less full of the matter at present, that already one of the most important applications of electricity is to the production of light. So far as regards the illumination of large spaces by lights of high intensity the problem may be considered as solved by a number of inventors whose different systems are already in successful operation. As to the lighting of houses and limited areas more perhaps remains to be done; but even as things stand to-day it is beyond question that the thing is entirely feasible, and at a cost considerably lower than that of gas.

The lights employed are of two kinds—the "arc" lights so called, which are produced by a current of electricity playing between two slightly separated pencils of carbon, and the "incandescent" lights, which are produced by a current passing through a continuous filament or slender rod of some refractory substance, which is also usually carbon. There are other possible forms of the electric light, but none of them appear likely to find much use in competition with the two we have named, tho in some cases the light produced by passing a rapid succession of discharges from an induction-coil through a tube filled with gas at a low pressure is utilized for scientific purposes.

The "arc" light dates back to the experiments of Davy in 1813. who first produced it by touching together two pieces of charcoal attached to the poles of his historic battery. On one occasion he employed a battery of two thousand pairs of plates (probably equivalent to about a thousand of those now used), and produced an arc nearly five inches in length; i.e., the current continued to pass even after the charcoal pencils were separated by that space. It is very seldom even now that such effects are ex-The experiment remained, however, a rare and costly one for thirty years. About 1844 Foucault, in Paris, hit upon the happy idea of substituting for the pencils of willow charcoal, used up to that time, rods of the dense hard carbon cut from the deposits which line the insides of old gas-retorts. These new carbons last much longer, and are more manageable. This improvement, the introduction of the powerful batteries of Grove and Bunsen, and the invention of effective lamps or regulators soon made the use of the electric arc much more common than before, tho still sufficiently rare.

In 1858 an electric lamp was established at the South Foreland light-house, on the English Channel, driven, not by a battery, but by a machine constructed by Holmes; a machine presenting no new features of importance, but simply a magnification of the smaller machines then found in every cabinet of physical apparatus. In 1863 a similar light, driven by a machine of slightly different construction, was established on the French side at La Hève. These lights have been running ever since, and several others have been added at different points upon the coasts of France and England. The machine invented by Wilde in 1866 (already spoken of) quite changed the aspect of affairs, and since then progress has been rapid and continuous.

At present the carbon rods employed are usually manufactured for the purpose by some one of many different processes of alternate compression and baking. They are rather expensive, so that their cost, according to the estimates of Fontaine and others, generally exceeds by a considerable amount that of the fuel burned in the engine which drives the current-generator. They are usually burned in "lamps" so constructed as to regulate for themselves the distance between the points; in some of them a new pair of carbons is automatically substituted for one that has been consumed, and in nearly all an arrangement is provided by which, in case of the failure of the lamp for any reason, the circuit will be closed so as not to affect other lamps which may be connected with the delinquent.

The number of these different electric lamps is already very great, and is continually increasing. Every bulletin of the patent-offices is sure to contain several inventions of this kind, some of them comically worthless, but many of them exceedingly ingenious and well thought out. Between the better lamps there is not much to choose, the steadiness and general good behavior of the light depending mainly on the excellence of the carbons and the uniform action of the generator.

At present "arc" lights are run both by continuous and by alternating currents; *i.e.*, in some cases the current is steadily in the same direction, while in others the current consists of pulses alternately positive and negative, succeeding each other at the rate of from 10 to 100 per second.

In a lamp actuated by a continuous current the positive car-

bon, for reasons as yet undiscovered, becomes much hotter than the negative, and is consumed about twice as rapidly. This requires a special mechanism for keeping the light at the same point, and demands attention to make certain that the wires are properly connected to the two terminals of the lamp. Where alternate currents are used this difficulty is, of course, obviated; the lamp becomes simpler, and it is entirely indifferent in what order its terminals are connected with the circuit. Nor is the generator any more difficult to construct, tho probably it is slightly less economical of power.

There is, however, one literally fatal objection to the use of alternating currents which ought to prohibit their use. The wires from a continuous-current machine can be handled without danger to life; the shock obtained, tho disagreeable enough, is not fatal: with the alternating current it is different; the shattering power of the intermittent shocks is tremendous, and several persons have already been killed by accidents from them. Probably all recollect the recent case upon the Livadia.

The amount of light which can be produced by an "arc" lamp is enormous, depending, of course, upon the size and excellency of the carbons and the power of the current; and the larger the light the more economical it is; i.e., a great light costs less for each candle-power than a small one. With the small lamps it is usual to get from 500 to 1200 candles' for each horse-power consumed by the engine; large burners do better, running as high as 2000 or 2500. Probably the most powerful lamp ever yet constructed is one recently made and tested in Cleveland by the Brush Electric Light Company under a special order from the British Admiralty. It is estimated at 100,000 candle-power, using carbons two inches and a half in diameter, and consuming forty horse-power. The ordinary arc-lights, of which there are now so many in our different cities, consume from one and a half to two horse-power, and give lights varying from 800 to 2500 candles.

For a long time it was found very difficult to run more than

¹ The unit of illumination ordinarily used in this country for photometric purposes is the light given by a sperm-candle of such size that six weigh a pound, and burning 120 grains an hour. An ordinary gas-burner is from twelve to fifteen times as bright.

one or two lamps in a single circuit, and machines were constructed which supplied each lamp with its own separate current through its own conductors. Of course this added greatly to the expense, especially in the matter of conductors. The difficulty has, however, been overcome in great measure, and at present Mr. Brush with some of his more powerful machines drives as many as forty lamps in one circuit, the remoter ones being as far as five miles from the engine, and that without any inordinate expense for the conducting cable.

As to the economy of the system, there can be no question that even in rather unfavorable situations, as, for instance, in the lighting of streets where the lamps are pretty widely separated, the electric light is at least as cheap as gas at one dollar a thousand feet. Under the most favorable circumstances, as in the lighting of mills and factories, where no separate plant is required to furnish the driving power, the saving is very great.

The total number of such lamps already in use is enormous. The Brush Company alone reported last January more than 6000 in operation—1200 of them in foreign countries. In this country 4860 were distributed, as follows:

800 lamps in metal-working establishments.

" cotton and woollen mills.

425 " stores, hotels, churches, etc.

250 " parks, gardens, docks, etc.

277 " railway-stations.

1500 " streets of cities.

380 " unclassified.

Probably the lamps of Siemens and the so-called candles of Jablochkoff are still more numerous in Europe, while those of other systems are not greatly behind.

Lights of this kind, however, are not suited for all purposes, as, for instance, for household illumination. What is wanted here is a lamp which will furnish somewhat more light than an ordinary gas-burner and will require no skilled attention to maintain it. To compete with gas it must be at least as cheap, and must not subject the user to any greater inconveniences.

What are called incandescent lamps best answer these conditions. When a current is passed through a conductor it heats it

more or less, and if the conductor is of such a nature as to oppose considerable resistance, its temperature may rise far above the incandescent point, so that it will become luminous and shine, without consuming, as long as the current passes. At first it was attempted to use metal filaments, but it was soon found that the temperature required to make them give off much light is perilously near that of fusion, even with the most refractory. Slender rods of carbon were then tried, and so far as principles are concerned the lamp invented by Starr and King in 1845 embodies pretty much everything of value in the newest. They employed carbon and enclosed it in the most perfect vacuum then known to science, in order to prevent the wasting action of the air. But at that time rods of carbon could not be made sufficiently slender and compact, nor were the present means of producing a perfect vacuum available, and, above all, the dynamo-electric machine existed then only in embryo. It would take us beyond our reasonable limits to trace the history of lamps of this class (tho that of Lodyguine, invented in 1873, must not be passed quite unmentioned), but we have at present one which seems likely to meet all the requirements of the problem. We say one, because the finished thing is essentially the same as made by either of the three different inventors who claim it-Swan in England, and Edison and Maxim in this country. however, more or less important practical differences in the methods by which the carbon filament, which is the essential feature and light-producing agent in all of their lamps, is prepared and connected to the conductors, as well as in the operations by which the glass vessel enclosing the filament is exhausted and sealed.

Of course this is not the place to discuss the questions of priority and patent rights involved in their respective claims.

These lamps use up nothing, in shining, except the current which excites them; they possess no complicated mechanism to be kept in order; they are small—not larger than an ordinary lamp-chimney; and they cost very little to construct in a large way, certainly not half a dollar apiece. On the other hand, they do not rival the arc-lights in brilliance (at least as a general thing, for Maxim has constructed a few of several hundred candle-power), and their luminous duty, if we may coin the

expression, is as yet only between one and two hundred candles per horse-power, or about one sixth that of the arc-lights. The arc-light is not, however, anything like six times as cheap as the other per candle-power, because its consumption of carbon pencils, as has already been said, costs more than the engine-power itself, while the incandescent light escapes this charge. Still the incandescent lamp cannot be regarded as absolutely imperishable, and as a matter of fact is seldom so perfect in all particulars as to last in practice more than two or three months; but the cost of replacement is trifling.

Besides these forms of the incandescent lamp there are others which, like that of Sawyer, more resemble the original lamp of the Starr-King patent. Instead of a slender carbon filament with an electric resistance of from fifty to two hundred ohms, they employ a small pencil of carbon some half an inch long, and about one twentieth of an inch in diameter, enclosed in a case which can be taken to pieces to replace the pencil when consumed. The resistance of these lamps is generally only from five to ten ohms, so that they are used, several of them consecutively in the same circuit, like arc-lamps. The lamps of the Edison type, on the other hand, have resistances ranging from fifty to two hundred ohms, and are inserted into the circuit side by side (technically "in multiple arc"): the portion of the current which flows through one lamp passes through no other.

There are also lamps, like that of Werdermann, which are intermediate between the purely incandescent and the arc. The thin pencil of carbon from which the light emanates touches lightly a larger block of carbon, and produces at the point of contact a brilliant star of light, without, however, forming an actual arc. But the carbon pencil wastes away pretty rapidly, and on the whole the apparatus is probably inferior to either of the two between which it is a cross.

We shall not undertake to discuss at length the economical question as to the lighting of houses by electricity. As against gas, advantages and disadvantages are both obvious: on the one side, a whiter light, freedom from heat and vitiation of the air, from foul smells and tarnish; on the other, the inability to store the supply against the time of need, the rather greater

liability to interruption by accident, and the difficulty of graduating the brightness of a given lamp in an economical manner. One can turn down a gas-flame and burn it low. No effective arrangement is yet known for doing the same thing with an electric lamp, at least in a satisfactory and easy manner.

As to comparative expense it is yet too early to decide with much confidence. The necessary conductors and current-meters on the electric system will probably about offset the service of gas-pipes and gas-meters, but they may turn out more costly than has been anticipated. The actual expense of producing the light, apart from all questions of interest on plant, will certainly be in favor of electricity.

But here another consideration comes up of great importance. The electric plant once being established and electricity "laid on" in the streets of a city as gas is now, it may be used very profitably for other purposes than that of lighting, especially for the transmission of power. The electric plant may thus be made to earn revenue by day as well as by night. Unless we are much mistaken, electricity will be more used in the near future as a means of transmitting power than for any other purpose.

Many attempts were made in the early days of electro-magnetism to construct electro-magnetic engines; i.e., to drive machinery by means of a galvanic current. There was no difficulty in making the machines go, but there was difficulty in making them pay. The simple fact is this: at current prices of mining, manufacture, and materials, every horse-power of energy developed in the current of a galvanic battery costs more than twenty times as much as a horse-power generated by a good steam-engine, and no ingenious contrivances for using the current can evade the fundamental difficulty. To put it differently: the mere coal consumed in extracting a ton of zinc from its ore would produce as much power in the boiler of a steamengine as could be got from the use of the zinc itself in a galvanic battery.

If, however, a method is ever found by which electricity can be developed directly, economically, and manageably by the consumption of fuel, without the intervention of steam or other engines, the case will be altered. To a certain extent the thermo-electric battery now does this very thing, but very imperfectly and wastefully.

For the present, then, we cannot profitably use battery currents to produce power; but we may use currents developed by a mechanical generator of electricity as a means of transferring power from one point to another; and apparently this is a far more economical method than any known system of mechanical transmission by wire ropes, water-pipes, or compressed air. that is needed is a suitable conductor from the electric generator to the electric motor which is in construction identical with the generator itself, either being capable of driving the other. conductor once laid remains without wear and tear, costing nothing but the interest. It would take us too far to discuss the conditions for the most profitable use of electricity in this way. We may say in general that currents of small quantity but high electro-motive force (like water streams of small velocity and high pressure in hydraulic pipes) are theoretically most economical; but then such currents are harder to manage on account of difficulties of insulation, so that a compromise must be effected. In practice it is found that many of the machines in use will transmit from one to ten horse-power a distance of a mile with a loss of less than twenty per cent.

One of the earliest applications of this principle was in some experiments by MM. Chrétien and Félix in France in 1878. They ploughed fields by electricity, substituting for the engine which had been used to pull the gang of ploughs a Gramme machine. They also used the same sort of machine upon a crane employed for the unloading of boats in the harbor of Sermaize, at an estimated economy over steam of nearly thirty per cent, after several months of trial.

In the electric railways of Siemens and of Edison the rails are used as the conductors, and the locomotive is replaced by a car on which is an electric motor deriving its current from the rails.

• By this arrangement it is possible to concentrate the motive power at central stations, and to substitute for the wasteful locomotives engines of a much more economical type. It is probable that for city tramways, elevated railroads, and other roads of similar description, the system will come into extensive use.

We have seen recent accounts of various machines driven by

electricity. One is a pile-driver, in which the steam-engine is replaced by an electric motor. Another is an electric elevator, in which an electric motor carried in the car is driven by a cable brought to it from the basement, and by means of an endless screw works the gearing which carries the car up or down. This contrivance is absolutely safe; in case of the failure of the current for any reason the car does not fall, but simply stops, and can be worked up or down by hand from the inside so as to release its inmates. Another ingenious machine is an electric hammer by Siemens, designed to replace the steam-hammer for not too heavy work. All of these appear to be entirely successful.

Indeed, as Professor Ayrton has pointed out, it seems very possible, perhaps even probable, that our whole industrial system is to be profoundly modified by this new possibility of economically transmitting the energy generated in large quantities and under the most favorable conditions, and so distributing it that it can be utilized a little at a time wherever needed. Instead of bringing operatives to their work and herding them in mills and factories, it may be possible to send the work to their homes, and thus to avoid many of the most serious evils of our present methods.

Our limits forbid more than a mere mention of certain other uses of the electric current. Siemens has experimented upon the effect of powerful electric lights upon the growth of plants, and has clearly shown the possibility of forcing vegetation and fruitage in this manner to an almost unlimited extent. The same gentleman and Jamin, in France, have shown how to employ the electric arc in blowpipe and crucible so as to produce for industrial purposes intensities of temperature never before attained; and others have proposed to use the current as a means of ordinary heating and cooking in the household. As to this latter proposition it is enough, however, to say that the method cannot be economical, tho it may be convenient in some cases. The steam-engine which produces the current never utilizes quite twenty per cent of the heat produced by the combustion of its fuel, to say nothing of the subsequent loss in transmission.

Of the uses of electricity in medicine and surgery we add

nothing here, nor of its applications in strictly scientific research, these subjects lying one side of our purpose.

We must not close without an allusion to the International Exhibition of Electricity which is to be opened at Paris next autumn under government auspices. It is sure to be one of the most interesting and important exhibitions ever held. One will be able to see in action nearly every form of electric generator, all sorts of electric lights and motors, all kinds of telegraphic and telephonic apparatus, all the different appliances by which electricity is used in chemical and metallurgic operations, and the instruments for measuring and determining all kinds of electrical constants.

It will gather together the most magical and incredible of facts, some things completed, the beginnings of more, the seeds and embryos of almost a new civilization.

CHARLES A. YOUNG. '

CHRISTIAN METEMPSYCHOSIS.

" TF a man die, shall he live again?" The Christian Scrip-I tures assure us that he will, and that his future life will be, in some manner, a state of retribution for the life that now is. More distinctly still we have, from the Master's own lips, the solemn announcement of a fixed period of Final Judgment. "For the hour is coming in the which all that are in the grave shall hear his voice, and shall come forth; they that have done good, unto the resurrection of life; and they that have done evil, unto the resurrection of judgment." Beyond these general assurances, however, no definite information is given respecting the period, nature, or circumstances of our future stage of existence. Enough is said to furnish a mighty sanction for the practical teachings of the Gospel, and thus to supply a strong motive for the purification of our life and character while here: but nothing is vouchsafed to gratify an idle curiosity. Hence a wide field is left for conjecture and speculation, which, if properly conducted in a reverent spirit, and with due reserves, may serve to enlighten and confirm our faith without disturbing its foundations, or pretending to be wise beyond what is written. Along the outer lines of what is explicitly revealed, and without trespassing at all upon the inclosed region of positive belief. there is abundant room for the legitimate and profitable exercise of a devout imagination.

This was certainly the opinion of an eloquent writer and earnest advocate of the strictest orthodoxy of Christian belief, the Count Joseph de Maistre. From his "Evenings at St. Petersburg" (vol. ii. p. 191) I translate the following passage: "Under this head [of legitimate conjecture] I class all those opinions not directly supported by revelation, but useful for

¹ I have translated literally εἰς ἀνάστασιν κρίσεως, instead of adopting from our Common Version what seems to me the harsh and unauthorized interpretation, "unto the resurrection of damnation."

explaining more or less plausibly what is expressly revealed. Take, if you will, the theory of the pre-existence of the soul, through which we can explain the doctrine of inherited sin. You see at once all that can be said against the opposite opinion—that of the successive creation of souls—and the advantage of the theory of pre-existence for a multitude of interesting explanations. Now, I do not adopt this theory as a portion of accredited belief; but it may reasonably be asked, that if I, poor weak mortal, can thus find a hypothesis not at all absurd, which solves perfectly an otherwise embarrassing problem, may I not suppose, even if this theory be not true, that there is some other solution of the difficulty, which we now know nothing of because God has refused it to our idle curiosity? As much might be said of Leibnitz's ingenious hypothesis respecting the crime of Sextus Tarquinius, which he has so ably developed in his Theodicy; and one might reason in like manner concerning a hundred other systems. Provided they are modestly proposed only to tranquillize the mind, and are not regarded as demon strated truths, they will not conduce to pride or tempt us to undervalue the authority of revelation."

Foremost among these open questions, as they may be termed, is that which concerns what is called the intermediate state. What becomes of the soul, we naturally inquire, during the indefinite interval between the dissolution of the body and the Final Judgment? We turn away with aversion, almost with terror, from the doctrine of the sleep of the soul during this long period, maintained tho it be by Archdeacon Blackburn, Bishop Law, and a few other authorities in the English Church. Interpreting literally the saying of St. Paul, "As by man came death, by man came also the resurrection of the dead," Dr. Law held, "that Jesus Christ at his second coming will, by an act of his power, restore to life and consciousness the dead of the human species, who, by their own nature and without this interposition, would remain in the state of insensibility to which the death brought upon mankind by the sin of Adam had reduced them." But an immortality the entrance upon which is to be so long deferred seems terribly like annihilation. If retribution can be thus postponed, if the dreamless sleep can be thus continued through indefinite ages without infringing the claims of justice, it would seem almost a gratuitous act to waken the soul again to consciousness.

But the prevailing opinion in the English Church, as well as in most denominations of Protestant Christians, is that the soul at death enters immediately upon the state of reward or punishment awarded to it as its due by infinite justice, wisdom, and love combined. There is a Hades, an under-world, the invisible place of departed spirits, Christ's descent into it after his crucifixion being affirmed in that venerable symbol of the Christian church, the Apostles' Creed. One of its divisions is paradise, the region of the blessed, and the other is a place of punishment for the impenitent sinner; and the doctrine that the soul enters at once upon this new stage of its existence is held to be taught by our Saviour in his assurance to the penitent thief on the cross, "To-day shalt thou be with me in paradise." The same immediacy of retribution is thought to be shadowed forth in the parable of Dives and Lazarus; but this impressive apologue, as we shall see, lends itself far more plausibly to a different interpretation.

The obvious objection to this theory of the intermediate state is, that it either does away altogether with our belief in a solemn day of final judgment at once for all mankind, or reduces it in our conception to a needless ceremony, all the consequences of which have been anticipated. The Romanist doctrine of purgatory avoids this objection, since it gives a meaning and a purpose to the limited expiatory pains endured in the intermediate period, as they are held to purify the soul from the effects of sin, and thus to fit it for unbroken and unlimited happiness The duration of these penalties, moreover, may be shortened through the intercession of the saints and the church militant, and thus an encouragement is afforded to the bereaved to make known their longings and their hopes through prayers for the dead. Sternly to forbid such prayers, as Protestants generally do, seems harsh, since it rebukes what we must admit to be a natural tendency of the sorrowing, and makes divine justice appear dark and forbidding, because inexorable. course, the Protestant argument is, that this doctrine of purgatory rests only on tradition and the authority of the church, having little or no support from Scripture.

Still another theory is conceivable, which I venture to propose only with great diffidence, because it has no weight of authority in its favor, tho it has long seemed to me an obvious and justifiable hypothesis, supported by some intimations in the New Testament, and better than any other to reconcile the conflicting claims of perfect justice and infinite mercy, and thus to vindicate the ways of God with man. The doctrine of metempsychosis, or the transmigration of souls, may almost claim to be a natural or innate belief in the human mind, if we may judge from its wide diffusion among the nations of the earth and its prevalence throughout the historical ages. It has been held by the Brahmans and the Bouddhists as far back as we can trace their history. It formed a part of the religion of ancient Egypt. . It was expressly taught by Pythagoras and Plato, and was adopted from them by most of the philosophical sects who built upon their foundations. We find a simple and pleasing exposition of the doctrine, unexceptionable in its moral tone and clothed in magnificent diction, in the sixth book of the Æneid. lief so widely diffused may not unreasonably be held, like the gift of language and of fire, to have formed part of a primitive revelation from God to man.

Our life upon earth is rightly held to be a discipline and a preparation for a higher and eternal life hereafter. But if limited to the duration of a single mortal body, it is so brief as to seem hardly sufficient for so grand a purpose. Threescore years and ten must surely be an inadequate preparation for eternity. But what assurance have we that the probation of the soul is confined within so narrow limits? Why may it not be continued, or repeated, through a long series of successive generations, the same personality animating one after another an indefinite number of tenements of flesh, and carrying forward into each the training it has received, the character it has formed, the temper and dispositions it has indulged, in the stage of existence immediately preceding? It need not remember its past history, even while bearing the fruits and the consequences of that history deeply ingrained into its present nature. many long passages of any one life are now completely lost to memory, tho they may have contributed largely to build up the heart and the intellect which distinguish one man from another! Our responsibility surely is not lessened by such forgetfulness. We are still accountable for the misuse of time, tho we have forgotten how or on what we wasted it. We are even now reaping the bitter fruits, through enfeebled health and vitiated desires and capacities, of many forgotten acts of self-indulgence, wilfulness, and sin—forgotten just because they were so numerous. Then a future life even in another frail body upon this earth may well be a state of just and fearful retribution.

Why should it be thought incredible that the same soul should inhabit in succession an indefinite number of mortal bodies, and thus prolong its experience and its probation till it has become in every sense ripe for heaven or the final judgment? Even during this one life, our bodies are perpetually changing, tho by a process of decay and restoration which is so gradual that it escapes our notice. Every human being thus dwells successively in many bodies, even during one short life. This physiological fact seems to have been known by Plato, as in a well-known passage of the Phædo, a clear statement of it is put into the mouth of Cebes, who argues, however, that this fact affords no sufficient proof of the immortality of the soul. "You may say with reason," Cebes is made to argue, "that the soul is lasting, and the body weak and short-lived in comparison. And every soul may be said to wear out many bodies, especially in the course of a long life. For if, while the man is alive, the body deliquesces and decays, and yet the soul always weaves her garment anew and repairs the waste, then of course, when the soul perishes, she must have on her last garment, and this only will survive her; but then, again, when the soul is dead, the body will at last show its native weakness and soon pass into decay." And again: "Suppose we admit also that, after death, the souls of some are existing still, and will exist, and will be born and die again and again, and that there is a natural strength in the soul which will hold out and be born many times—for all this, we may still be inclined to think that she will be weary in the labors of successive births, and may at last succumb in one of her deaths and utterly perish."1

¹ Jowett's translation, Am. ed., vol, i. p. 416.

In the Dialogue, Socrates admits, with Cebes, that this one fact, taken alone, does not sufficiently prove that the soul will never die; and he proceeds to argue in defence of immortality on other grounds. But what we are here especially concerned to notice is the assertion, made in the passage cited, that "the soul always weaves her garment anew and repairs the waste." This is a distinct statement by anticipation of the modern physiological doctrine taught by Stahl, Bouillier, Hartmann, and other animists, that the soul has a plastic power, and is thus an unconscious agent of Deity in constructing its own corporeal organism. As bees and birds instinctively fashion their own curiously wrought cells and nests with an art which is not their own, since they know nothing of the admirable adaptations of the parts to each other, or of the uses which the whole structure is to subserve, we may well believe that they also blindly put together, from the earliest embryonic stage upwards, the whole fabric of their own bodies. The animal's own will is the operative agent, the purpose and the guidance are divine. This is the essential purport of Dr. Cudworth's noted hypothesis of "a plastic nature." The primal germ of all animal life, from the animalcule up to man, is a minute speck too small to be discerned except by the highest power of the microscope. And yet this is all which is directly inherited from the parent; all the other portions of the completed structure are subsequently brought from without and superinduced upon this speck by epigenesis. Now which is the more probable hypothesis? That of the materialist, that within this infinitesimal germ is lodged a most complex and elaborate apparatus, which blindly and mechanically builds up, step by step, the whole animal organism with all its artistic arrangement of parts and capacities of action? Or that of the spiritualist, who holds that a principle of life—in the case of man, a living soul—is attached to that speck by a divine hand, and then this vital principle, God-guided, weaves for itself its own future habitation? The unconscious action of mind or instinct in keeping up the organism through repairing its waste, healing its wounds, and remedying its hurts, is recognized by most scientific observers. Then we may well believe with Plato, that as "the soul always weaves her garment anew," and thus reconstructs the body many times during one short

life, it also has "a natural strength which will hold out and be born many times," at each successive birth fashioning for itself anew its future home.

If every birth were an act of absolute creation, the introduction to life of an entirely new creature, we might reasonably ask why different souls are so variously constituted at the outset. We do not all start fair in the race that is set before us, and therefore all cannot be expected, at the close of one brief mortal pilgrimage, to reach the same goal and to be equally well fitted for the blessings or the penalties of a fixed state hereafter. The commonest observation assures us that one child is born with limited capacities and perhaps a wayward disposition, strong passions, and a sullen temper; that he has tendencies to evil which are almost sure to be soon developed. Another, on the contrary, seems happily endowed from the start; he is not only amiable, tractable, and kind, but quick-witted and precocious, a child of many hopes. The one seems a perverse goblin, while the other has the early promise of a Cowley or a Pascal. differences of external condition also are so vast and obvious that they seem to detract much from the merit of a well-spent life and from the guilt of vice and crime. One is so happily nurtured in a Christian home, and under so many protecting influences, that the path of virtue lies straight and open before him—so plain, indeed, that even the blind could safely walk therein; while another seems born to a heritage of misery, exposure, and crime. The birthplace of one is in Central Africa, and of another in the heart of civilized and Christian Europe. Where lingers eternal justice then? How can such frightful inequalities be made to appear consistent with the infinite wisdom and goodness of God?

If metempsychosis is included in the scheme of the divine government of the world, this difficulty disappears altogether. Considered from this point of view, every one is born into the state which he has fairly earned by his own previous history. He carries with him from one stage of existence to another the habits or tendencies which he has formed, the dispositions which he has indulged, the passions which he has not chastised, but has voluntarily allowed to lead him into vice and crime. No active interference of retributive justice is needed, except in

selecting for the place of his new birth a home with appropriate surroundings—perhaps such a home as through his evil passions he has made for others. The doctrine of inherited sin and its consequences is a hard lesson to be learned. We submit with enforced resignation to the stern decree, corroborated as it is by every day's observation of the ordinary course of this world's affairs, that the iniquity of the fathers shall be visited upon the children even to the third and fourth generation. But no one can complain of the dispositions and endowments which he has inherited, so to speak, from himself; that is, from his former self in a previous stage of existence. If, for instance, he has neglected his opportunities and fostered his lower appetites in his childhood, if he was then wayward and self-indulgent, indolent, deceitful, and vicious, it is right and just that, in his manhood and old age, he should experience the bitter consequences of his youthful follies. If he has voluntarily made himself a brute, a brute he must remain. The child is father of the man, who often inherits from him a sad patrimony. There is an awful meaning, if we will but take it to heart, in the solemn announcement of the angel in the apocalyptic vision: "He that is unjust, let him be unjust still; and he which is filthy, let him be filthy still; and he that is righteous, let him be righteous still; and he that is holy, let him be holy still." And it matters not, so far as the justice of the sentence is concerned, whether the former self, from whom we receive this heritage, was the child who, not many years ago, bore the same name with our present self, or one who bore a different name, who was born in another age and perhaps another hemisphere, and of whose sad history we have not now the faintest remembrance. We know that our personal identity actually extends farther back, and links together more passages of our life, than what is now present to consciousness; tho it is true that we have no direct evidence of this continuity and sameness of being beyond what is attested by memory. But we may have indirect evidence of it from the testimony of others in the case of our own infancy, or from revelation, or through reasoning from analogy and from the similarity of cases and characters. The soul, said the Hindoos, is in the body like a bird in a cage, or like a pilot who steers a ship and seeks a new vessel when the old one is worn out.

Who shall say, then, that the doctrine of original sin is necessarily an impeachment of God's justice? If the theory which I am now setting forth is well founded, such sin is an immediate and grand manifestation of such justice.

This ethical significance, as it may be called, of the doctrine of the transmigration of souls, this aspect of it in which it appears as holding the balance even, immediately and inseparably uniting holiness with its reward and sin with its punishment, is its essential feature according to the Brahmans and the Bouddhists, and one upon which they place the greatest stress, tho they carry out the retribution, as might be expected, into needless and whimsical details. They teach that whatever sufferings we wrongly inflict upon others in this life must be expiated in a future state by enduring precisely similar sufferings in our own person; even he who wantonly maims or kills a brute animal will, at some day in the infinite future, be born again as such an animal, and will suffer the same mutilation or death. pitiless in beholding the hunger and nakedness of others while here, our own cry for compassion will not be heard when we shall be called to endure the like evils hereafter. The parts will be interchanged; the oppressor and his victim, the tyrant and his slave, will change places with each other. All this may seem fanciful enough; but it is an apologue which involves a great truth, for it is essentially the same lesson which is so impressively taught in the parable of Dives and Lazarus. time of expiation is there represented as continuous and parallel with the life that now is; for the rich man, after the agonized cry wrested from him by his own sufferings, "Have mercy on me!" prays that a message may be sent to those who are still living, to his five brethren, that they may be called to repentance. We need not fix any arbitrary limit here between imaginative illustration and literal truth; for we are only concerned with the moral of the story, which is all contained in the solemn monition, "Son, remember that thou in thy lifetime receivedst thy good things, and likewise Lazarus evil things; but now he is comforted, and thou art tormented." Considered either as parable or prophecy, it is an accurate picture of the immediacy and the even measure of God's justice. The Latin poet who seems to have imbibed most of the spirit of Christianity, while ignorant of its letter, teaches essentially the same truth: "Quisque suos patimur manes"—each one of us suffers his own appropriate punishment.

The pantheists also, or rather those who teach the absolute unity of all things without admitting any form of theism, draw a similar picture of the immediacy and the essential nature of eternal justice, while seeking only to interpret the voice of conscience in conformity with their peculiar doctrine. Temporal justice, as it is administered by man through the institutions of society, through its apparatus of judicial tribunals and prisons and scaffolds, always admits delay between the criminal act and its retributive consequences; for, as its name imports, it takes place under the form of time, and needs time in order to be carried out. Hence the arm of such justice is slow to strike and uncertain in its aim, so that it often fails altogether. Not so with eternal justice, which is above or beyond time, so that the offence and its punishment are inseparably connected as one and the same event, because there is no real or absolute distinction, but only a phenomenal one, between the offender and the offended. He who injures another in fact wrongs himself: to adopt Schopenhauer's striking figure, he is only a wild beast who fastens his fangs in his own flesh. We cannot accept this theory, as it is founded upon a denial of the self-evident truth attested by every one's consciousness, that, at any one moment, he is a distinct personality separate from that of every other human being. The difference between you and me is more than phenomenal; conscience as well as consciousness declares that it is complete and absolute.

Nothing prevents us, however, from believing that the probation of any one soul extends continuously through a long series of successive existences upon earth, each successive act in the whole life-history being retributive for what went before. For this is the universal law of being, whether of matter or mind; everything changes, nothing dies in the sense of being annihilated. What we call death is only the resolution of a complex body into its constituent parts, nothing that is truly one and indivisible being lost or destroyed in the process. In combustion or any other rapid chemical change, according to the

admission of the materialists themselves, not an atom of matter is ever generated or ever ceases to be; it only escapes from one combination to enter upon another. Then the human soul. which, as we know from consciousness, is absolutely one and indivisible, only passes on after the dissolution of what was once its home to animate another body. In this sense we can easily accept the doctrine of the resurrection of the body. Our future life is not, at any rate not while the present administration of this world's affairs continues, to be some inconceivable form of merely spiritual being. It will be clothed again with a body, which may or may not be in part the same with the one which it has just left. Leibnitz held that the soul is never entirely divorced from matter, but carries on some portion of what was its earthly covering into a subsequent stage of existence. Hence, while we cannot admit the dream of the Eleatic and the pantheist that all is one, that there is no separate individual being, that the distinction between you and me and all other beings who even now walk the earth is only phenomenal or apparent, like the difference between the many images of the moon in countless pools of water, all of which are mere representations of the one moon up there among the clouds—I say, while we cannot admit this senseless and inconceivable doctrine, for it is contradicted by the clearest dictates of consciousness, we can easily imagine and believe that every person now living is a representation of some one who lived perhaps centuries ago under another name, in another country, it may be not with the same line of ancestry, and yet one and the same with him in his inmost being and essential character. His surroundings are changed; the old house of flesh has been torn down and rebuilt: but the tenant is still the same. He has come down from some former generation, bringing with him what may be either a help or a hindrance; namely, the character and tendencies which he there formed and nurtured. And herein is retribution: he has entered upon a new stage of probation, and in it he has now to learn what the character which he there formed naturally leads to when tried upon a new and perhaps broader theatre. If this be not so, tell me why men are born with characters so unlike and with tendencies so depraved. In a sense

far more literal than was intended by the poet, it may be true of every country church-yard, that

"Some mute inglorious Milton there may rest, Some Cromwell guiltless of his country's blood."

They bring with them no recollection of the incidents of their former life, as such memory would unfit them for the new part which they have to play.

"Animæ, quibus altera fato Corpora debentur, Lethæi ad fluminis undam Securos latices et longa oblivia potant. Scilicet immemores supera ut convexa revisant."

But they are still the same in the principles and modes of conduct, in the inmost springs of action, which the forgotten incidents of their former life have developed and strengthened. They are the same in all the essential points which made them formerly a blessing or a curse to all with whom they came immediately in contact, and through which they will again become sources of weal or woe to their environment. Of course, these inborn tendencies may be either exaggerated or chastised by the lessons of a new experience, by the exercise of reflection, and by habitually heeding or neglecting the monitions of conscience. But they still exist as original tendencies, and as such they must make either the upward or the downward path more easy, more natural, and more likely to reach a goal so remote that it would otherwise be unattainable.

To make this more clear, let me refer to the pregnant distinction so admirably illustrated by Kant between what he calls the Intelligible Character and the Empirical or acquired Character. The former is the primitive foundation on which the latter, which directly determines our conduct for the time being, is built. To a great extent, tho not entirely, we are what we are through the influence of what have been our surroundings—through our education, our companions, our habits, and our associations. But these influences must have had a primitive basis to work upon, and can only modify the operation of the native germs, not change their nature; and they will modify these more or less profoundly according as they are

more or less amenable to outside influences and manifest more or less decidedly a bias in one direction or another. future plant will be depends much more on the specific nature of the seed which is sown than on the fertility or barrenness of the soil into which it is cast. The latter only determine whether it shall be a vigorous plant or a weak one, whether in fact it shall grow at all or only rot in the ground; but they do not determine the specific direction of its development, whether it shall be an oak, a willow, or an ivy bush. The empirical or acquired character, as it is open to observation, is a phenomenon; it is what the man appears to be, or what he has become under the shaping influence of the circumstances to which he has been exposed. But the Intelligible Character, the inmost kernel of his real being, is a noumenon, and escapes external observation; we can judge of its nature only indirectly from its effects; that is to say, from the conduct which it has co-operated to produce. A change taking place in any substance must be the joint result of two factors; namely, its proper cause operating upon it from without, and the thing's own nature or internal constitution. Thus the same degree of heat acts very differently upon different substances, say, on wax, iron, water, clay, or powder. In like manner, a given motive, say, the desire of wealth, when acting on different persons, tho with the same strength or intensity, may lead to very dissimilar results; it makes one man a thief and another a miser, renders one envious and another energetic and industrious. If frequently indulged, it forms a fixed habit, and thus becomes an element in the acquired or empirical character.

Now Kant, with the bias of a necessitarian, places our freedom and our responsibility in the realm of noumena, attributing them exclusively to our Intelligible Character. As to the acquired character when once formed, he says we must act in accordance with it, and therefore we are not accountable for the particular act to which it led, since that we could not help. After I have once formed a habit of lying or stealing, should an opportunity and temptation recur, I must repeat the offence. But our inborn character, which expresses what we really are, as a noumenon, lies outside of time, space, and causality, and therefore cannot be led astray by temptation or external cir-

cumstances, but is entirely free. Herein solely consists our merit or our guilt. Hence Kant would make us responsible not for the particular crime, which we could not help committing, but for being such a person as to be capable of that crime. We are accountable not for what we do, but for what we are. We are to be punished not for stealing this horse, but for being a rogue or thief in grain, for being naturally inclined to stealing.

It would seem, however, that this theory completely reverses the verdict of natural justice, which declares that we might have resisted the force of habit and special temptation, and consequently that we are punishable for the particular act; while on the other hand, we could not help being born with a feeble or depraved character, but in so far, we are objects rather of compassion than of censure. And yet Kant is right in the latter half of his theory, since conscience unmistakably testifies that we are responsible for our inmost nature: that is, for our innate tendencies to wrong-doing or its opposite. We do not esteem a truthful person any the less because he is so happily constituted that he cannot help telling the truth; rather this fact enhances our respect for his character. And we detest a falsehood all the more if he who utters it has been a liar from the beginning. Now it seems to me that this instinctive action of conscience in awarding merit or guilt rather to the primitive and inborn character of the man, to "the one permanent individuality which continues unchanged through all the various modes of consciousness," than to any particular act in which that character and individuality happen to be manifested, can be explained only by accepting that paradoxical portion of Kant's theory, which declares that we were free to make our own inmost nature, our permanent individuality, other than it is, and we are therefore responsible for its perversion. That the man was thoroughly bad, bad from the beginning, surely makes him more hateful than if he had been merely tempted into a single act of sin which marred the uniformity of a character otherwise pure and blameless. But this strange fact, that we are even more responsible for what we are than for what we do, can be accounted for only by supposing that we freely made ourselves what we are in a previous stage of probationary being. Only through voluntary persistence in wrong-doing at some former

period, only through frequently yielding then to temptation, could we have formed the depraved habits and tendencies which appeared ingrained into our inmost nature from the very beginning of our present life. And conversely, a nature happily endowed from the start must be the reward, as it is the necessary consequence, of virtuous habits and a steadfast adherence to the right through a former state of existence.

I know not how it may seem to others, but to me there is something inexpressibly consolatory and inspiring in the thought that the great and good of other days have not finally accomplished their earthly career, have not left us desolate, but that they are still with us, in the flesh, tho we know them not, and tho in one sense they do not really know themselves. because they have no remembrance of a former life in which they were trained for the work which they are now doing. But they are essentially the same beings, for they have the same intellect and character as before, and sameness in these two respects is all that constitutes our notion of personal identity. We are unwilling to believe that their beneficent activity was limited to one short life on earth, at the close of which there opened to them an eternity without change, without farther trial or action, and seemingly having no other purpose than unlimited enjoyment. Such a conception of immortality is exposed to Schopenhauer's sarcasm, that if effort and progress are possible only in the present life, and no want or suffering can be endured except as the penalties of sin, there remains for heaven only the weariness of nothing to do. An eternity either of reward or punishment would seem to be inadequately earned by one brief period of probation. It is far more reasonable to believe that the future life which we are taught to expect will be similar to the present one, and will be spent in this world, tho we shall carry forward to it the burden or the blessing entailed upon us by our past career. Besides the spiritual meaning of the doctrine of regeneration, besides the new birth which is "of water and of the Spirit," there may be a literal meaning in the solemn words of the Saviour, "Except a man be born again, he cannot see the kingdom of God."

It would be a fanciful and bootless task for us to attempt, even in a single instance, to trace the same person through a

succession of earthly lives. When the body and all its surroundings are altered, when the modes of action are new and the results different, it needs more than human sagacity to perceive that the character is still the same. Only he who reads the heart can know, after the whole environment of outward circumstances is changed, that the personality still endures and has suffered no break in the essence of its life's history. When even our Lord, after his resurrection, first appeared to Mary Magdalene and to the two disciples at Emmaus, familiar as they had been with his external appearance, we read that "their eyes were holden that they should not know him." Then we can have a more lively faith in the truth of the last promise which he made to them, "And lo, I am with you alway, even unto the end of the world." Even in this earthly life, at the various stages of its history, there is room for a richly varied experience; there are countless fields for distinct effort in it, and we may not measure the importance of the work to be done in any one of them by what the world thinks of its dignity or the largeness of its results. The saintly Carlo Borromeo was a cardinal and a prince, and therefore found the whole north of Italy but a narrow theatre for the incessant warfare which he waged, often at the peril of his life, against all forms of sickness, sorrowing, and sin. He was canonized not long after his death, and the gigantic statue of him which crowns a height near Arona is appropriately visible for many leagues around, tho by no means so far as his philanthropic influence extended. If, after the dissolution of his body, his beneficent spirit was still allowed to walk the earth in a mortal form, it might perhaps be found, not in any lofty and conspicuous station, but in the seclusion of a remote Alpine valley, where an Oberlin taught, loved, and helped his brother-man. Luther was born in an age when a great crisis was imminent in the world's affairs, and his indomitable spirit, his fervent convictions, and his restless energy had full scope and play in the opening scenes of the Reformation. and character the same as his could anywhere be traced in the subsequent history of the world, perhaps it might be detected within the fold of the very church which he strove to overthrow, in him who was called "the great Arnauld," who, persecuted and in exile during the greater part of his long life, still

bated not a jot of heart or hope, but fought on and prayed on in defence of a sinking cause, and whose collected works in philosophy and theology occupy fifty folio volumes. Late in life, when his friend and coadjutor Nicole besought him to lay down the pen and take some repose, he exclaimed, "Rest! Shall we not have all eternity to rest in?" "Probably not," I should answer; for surely a heaven in which there was nothing to do would be no heaven to him. Jansenism as a distinctive sect and creed hardly survived the death of its founders, and has-now long been entirely extinct. But I should be sorry to believe that that remarkable group of excellent scholars, thinkers, and divines, the Port-Royalists, who upheld the cause of Jansenism for three quarters of a century, have finally passed away from earth. On the contrary, if anywhere in these later times the model of a Christian scholar and historian could be found, we might well say that the spirit of Tillemont lives again in him. If we could find one who united in himself all the best qualities of a Christian teacher stainless in heart and life, we might well believe that it was Lancelot in another earthly form. For either Pascal or Arnauld, it must be admitted that we should not know where to look; if their spirits are yet in this world, they must be in the obscurity of some lowly station.

All this speculation, I repeat, is completely fanciful, and can serve no other purpose than to show, even if the doctrine of metempsychosis were true, that we should not be able to identify one person in any two of his successive appearances upon earth. We surely could not know of him in this respect any more than he knows of himself; and as already said, the total break in memory at the beginning of every successive life must prevent the newly born from recognizing the oneness of his own being with any former existence in an earthly shape.

Curiously enough this want of self-knowledge is confessed in the only case in which we have a direct assertion in Scripture, (if language is to be interpreted in its ordinary literal meaning, and not strained into a figurative sense), that one of the heroes of the olden time had reappeared upon earth under a new name, as the forerunner of a new dispensation. At the time of the Saviour, there appears to have been a general expectation among the Jews, that the coming of the Messiah was to be heralded by

the reappearance upon earth of the prophet Elijah, this expectation being founded upon the text in Malachi, "Behold, I will send you Elijah the prophet before the coming of the great and dreadful day of the Lord." Early in the public ministry of John the Baptist, we read that the belief prevailed among his hearers that this prophecy was fulfilled in him. But when directly asked, "Art thou Elias?" he replied, "I am not. Art thou that prophet? And he answered, No." He had no memory of his former life under that name; and tho he must have been aware of the popular belief upon the subject, and of the many points of similarity between his own career and that of the great restorer of the worship of the true God at an earlier period, he was too honest to claim an authority which he did not positively know to belong to him.

Yet we learn that our Lord subsequently twice declared, in very distinct language, that Elijah and John the Baptist were really one and the same person. Once, while John was still alive but in prison, Jesus told the multitude who thronged around him, "Among them that are born of women there hath not risen a greater than John the Baptist;" and he directly goes on to assert, "if ye will receive it, this is Elias, which was for to come" (Matt. xi. 14). And again, after John was beheaded, Jesus said to his disciples, "Elias is come already and they knew him not, but have done unto him whatsoever they listed." "Then the disciples understood that he spake unto them of John the Baptist." (Matt. xvii. 12, 13.) Still again, in the scene on the mount of Transfiguration, "behold there talked with him two men, which were Moses and Elias;" and it is said of the three disciples who were then in company with Jesus that, "when they were awake, they saw his glory and the two men that stood with him." (Luke ix. 30, 32.) That the commentators have not been willing to receive, in their obvious and literal meaning, assertions so direct and so frequently repeated as these, but have attempted to explain them away in a non-natural and metaphorical sense, is a fact which proves nothing but the existence of an invincible prejudice against the doctrine of the transmigration of souls.

This prejudice is largely attributable, as it seems to me, to a corrupt admixture of the proper doctrine with oriental fables

respecting the interchange of souls between human beings and the brute creation. But in the sixth book of Virgil, where the dogma is probably stated in the form in which it was accepted. if at all, by cultivated minds among the Greeks and Romans about the time of our Lord's ministry, this idle and offensive corruption of it does not appear. Certainly I do not accept the hypothesis of the transmigration of souls between men and the lower animals, because I do not believe that these animals have any souls to migrate. This wild Indian fable may be left to the credulity of our modern evolutionists, who can believe that birds are generated from fishes, and that man was born of a monkey. The gulf between the mental constitution of the highest brutes -anthropoid apes, for instance-and a human soul, capable even in its lowest state of progress, language, free will, morality, and religion, is so broad and deep that those who believe it can be bridged over had better not talk about the incredibility of mir-The only high endowment of merely animal life, that of instinct, is, as I have elsewhere argued, not a free and conscious power of the subject in which it appears and works. speak, a foreign agency, which enters not into the individuality of the brute. The animal appears subject to it, controlled and guided by it, but not to possess and apply it for its own chosen purposes. In its highest functions the brute appears only as the blind and passive instrument of a will which is not its own.

> "And Reason raise o'er Instinct as you can, In this 'tis God directs, in that 'tis man."

The power thus granted to it for a time cannot be improved by practice, is invariably applied in the same way and with perfect success, and disappears when it is no longer needed. No moral character is attributable to a faculty which is thus unconsciously exerted, and no moral aim can exist where progress or change is impossible. When deprived of this extraneous power, or viewed apart from it, the brute appears in its true light as the creature of a day, born for purposes not connected with its own being, but as an humble instrument or means in the great circle of animated nature, which, as a whole, is subservient to higher ends. In the General Scholium to his "Optics," Sir Isaac Newton rightly says, "The instinct of brutes and insects can be

nothing else than the wisdom and skill of a powerful ever-living Agent, who, being in all places, is more able by his will to move all bodies, and thereby to form and reform the parts of the universe, than we are by our will to move the parts of our bodies."

There is ample room and verge enough for the action of metempsychosis within the limits of the human race, excluding the brute animal kingdom altogether. The interval between a Newton and an Australian savage, between a St. Louis and an Attila or a Genkhis Khan, is vast enough to afford scope for indefinite moral advancement or degradation, even if the history of the world thus far showed all that either holiness or wickedness in a human shape is capable of; and, always excepting on the former side Him who was both human and divine, there is not the least reason to believe that the limits of what is possible for human nature either way have yet been reached. Assuming the doctrine to be well founded, it is for every person to determine with what character he will leave the world at the close of one stage of his earthly being, believing that with this same character thus trained for weal or woe he is inevitably at once to begin a new life, and thus either to rise or fall farther than ever. It seems to me that the dogma of a future life, so prolonged through a countless succession of other lives on earth until it becomes an immortality, is thus brought home to one with a force, a vividness and certainty, of which in no other form is it susceptible. It has been said that no prudent man, if the election were offered to him, would choose to live his present life over again; and as he whom the world calls prudent does not usually cherish any lofty aspirations, the saying is probably true. We are all so conscious of the many errors and sins that we have committed that the retrospect is a saddening one; and worldly wisdom would probably whisper, "It is best to stop here, and not try such a career over again." But every one would ardently desire a renewal of his earthly experience if assured that he could enter upon it under better auspices, if he believed that what we call death is not the end of all things even here below, but that the soul is then standing upon the threshold of a new stage of earthly existence, which is to be brighter or darker than the one it is just quitting according as there is carried forward into it a higher or lower purpose, a purer or

more corrupt nature, than the one it began with perhaps half or three quarters of a century ago. As applied to describe our condition in a future life thus understood, the much-abused words, heaven and hell, would have a more obvious and intelligible sense, a meaning less exposed to captious objections and scoffs, than could be given to them on any other interpretation. We should thus understand the full purport of our Saviour's solemn declaration that they do not mean any particular place, but only a state of mind: "They shall not say, Lo here! or, lo there! for, behold, the kingdom of God is within you." We could then apply to the whole succession of lives of any individual soul what Lacordaire finely says of any one life, that it may be made a series of metempsychoses or transfigurations which constantly lead the soul nearer to God.

This doctrine also suggests, as it seems to me, a clearer and more satisfactory explanation than would otherwise be possible of the fall of man through disobedience and its consequences, as narrated in Genesis and interpreted by St. Paul. Certainly the primeval man, the Adam of each one of us, when he first through the inspiration of Deity "became a living soul," was born into a paradise, an Eden, of entire purity and innocence, and in that state he talked directly with God. There was also given to him through his conscience the revelation of a divine law, an absolute command, to preserve this blessed state through restraining his appetites and lower impulses to action, and making the love of holiness superior even to the love of knowledge. But man was tempted by his appetites to transgress this law; he aspired after a knowledge of good and evil, which can be attained only through experience of evil, and he thereby fell from innocence into a state of sin, which necessarily corrupted his whole future being. The habit of disobedience once formed, sin in the same person has a self-continuing and self-multiplying power. The stain carried down from a former life becomes darker and more inveterate in the life that follows. We have no reason to complain of the corruption of human nature, for the world is what we have made it to be by our own act. burden has not been transmitted to us by others, but has been inherited from ourselves; that is, from our former selves. demption from it by man's own effort thus became impossible.

This is death, moral death, the only death of which a human soul is capable. It is so called in the parable, where the father, speaking of the prodigal son's return, says of him, "For this thy brother was dead, and is alive again; was lost, and is found." Salvation became possible only through the Incarnation, by a new creation, by the appearance of a sinless and divine nature in a human form, reconciling the world unto God. And this appears to be the full meaning of St. Paul's language: "For since by man came death, by man came also the resurrection of the dead. For as in Adam all die, even so in Christ shall all be made alive."

Thus far we have considered metempsychosis as a means of retribution: that is, of awarding to each soul in the next future life upon which it is entering that compensation either of weal or woe which it has earned for itself—has in fact necessarily entailed upon itself by its conduct in the life which it has just completed. But the transmigration of souls may be regarded also in another light, as that portion of the divine government of this world's affairs which maintains distributive justice, since, through its agency, in the long-run, all inequalities of condition and favoring or unfavoring circumstances may be compensated, and each person may have his or her equitable share of opportunities for good and of the requisite means for discipline and improvement. If our view be confined within the 'limits of a single earthly life, it must be confessed that the inequality is glaring enough, so that it seems to justify the honest doubts of the trembling inquirer, while it has offered a broad mark for the scoffs and declamation of the confirmed unbeliever. Dives and Lazarus form a contrast that is almost constantly before our eyes. It is a long way from a poor laborer's hut to a throne, and a still longer one from a birthplace in one of the sinks of misery and crime which pollute our great cities to the affectionate nurture of a comfortable Christian household. One saint must encounter martyrdom, while another, in a different age and country, seems to find the road to heaven comparatively straight and easy. There are some situations so degraded and miserable that they seem almost to take away the guilt of transgression by rendering goodness practically unattainable, while those who occupy them are hardly fit subjects either of praise

or censure. An Australian savage or a native New Zealander, as he was a century ago, could not have become by death a proper candidate for either the happiness or the misery of a spiritual immortality begun then and there. And yet one is reluctant to classify him with the brutes that perish; for, savage as he was, he was still man, having in him the germs of a moral and religious nature, which proper Christian culture could develop.

Now the parable gives us a simple and effective solution of these difficulties by merely suggesting that the immediately future life is also, like the present one, to be spent on this earth. only the position of the two characters in it being reversed; and a belief in such transposition would be always a desirable warning for Dives and a needed comfort for Lazarus. In this way, as it seems to me, a firm and well-grounded faith in the doctrine of Christian metempsychosis might help to regenerate the world. For it would be a faith not hedged round with many of the difficulties and objections which beset other forms of doctrine, and it offers distinct and pungent motives for trying to lead a more Christian life, and for loving and helping our brother-man. "And this also shall pass away" was the motto which a wise king had engraved on his signet, to temper alike his grief in adverse fortune and his exultation in prosperity. Even the old heathen poet, an avowed Epicurean, gives the same advice.

> "Æquam memento rebus in arduis Servare mentem, non secus in bonis Ab insolenti temperatam Lætitia, moriture Delli."

But no hog from Epicurus' sty ever put such counsel into the impressive form in which it is enforced in the parable. Nothing can teach so forcibly the essential brotherhood of all men as a belief that we are soon to experience in our own person all the varieties of condition to which human nature is subject; that the rich and the poor, the savage and the civilized man, the monarch and the peasant, are soon to change places with each other. We should thus learn to repeat with more earnestness than ever the Christian prayer,

"The mercy I to others show, That mercy show to me." For the probation which is to fit us for eternity must be comprehensive enough to leave no form of being untried, no temptation that has not been resisted, no trial that has not been borne, no opportunity for the exercise of pity, trust, and love left unimproved. Herein is no distinction of persons, and no one has any advantage over another, since all must complete the same long journey, and each must have essentially the same experience while on the road.

The doctrine is full of solemn warning then, but it is also full of consolation. For it teaches that the friends who have been separated from us by what we call death have only passed out of our limited field of sight, but are still in the body and really near us, are still tenanting the earth like ourselves, tho in forms which we cannot recognize. Intercession for the socalled dead, therefore, ceases to appear out of place or in any way objectionable; for they are not only still living, but living in a probationary state, exposed to trial, temptation, and suffering just as we are, and therefore as proper subjects for intercessory prayer as they were before they changed their name and dwelling-place. The intermediate state, considered as a series of existences of the same soul in a succession of earthly bodies. is a sort of purgatory, by passing through which the soul may, if it will, be purified from the stains of sin and regain its primitive Eden, its state of purity and innocence. If the fervent prayer of a righteous man availeth much, I cannot see why it should not aid in completing this happy work.

This hypothesis—and I do not claim for it any other character than that of a highly probable and consolatory hypothesis—also throws a new and welcome light upon the deep and dark problem of the origin of evil. In the first place, according to the views which have now been taken, the sufferings which are the immediate consequence and punishment of sin are properly left out of the account, since these evince the goodness of God no less than the happiness resulting from virtue, the purpose in both cases being to advance man's highest interests by the improvement of his moral character; just as the affectionate parent rewards the obedience and punishes the faults of his child, love equally constraining him to adopt either course. And how many of the evils borne both by individuals and by communities are

attributable directly to their own misconduct, to their wilful disregard of the monitions of conscience! The body which is now languid from inaction through sloth, and enfeebled or racked by disease, might have been active, vigorous, and sound, prompt to second every wish of its owner, and ministering to his enjoyment through every sense and limb. And could we know all. could we extend our vision over the whole history of our former self, how would our estimate of this purely retributive character of our present suffering be enlarged and confirmed! It would then be evident that no portion of it is gratuitous or purpose-And the community which is now torn with civil dissension, desolated by war, or prostrated in an unequal strife with its rivals, might have been peaceful, affluent, and flourishing, if rulers and ruled had heeded the stern calls of duty, instead of blindly following their own tumultuous passions. And as nations, too, have a continuous life, like that of a river, through a constant change of their constituent parts, many of their woes are clearly attributable to the misdeeds of their former selves. Once admit the great truth, that virtue, not happiness, is man's highest interest, and most of the pains of this life indicate the goodness and justice of God quite as much as its pleasures.

But according to the theory which we are now considering, a still larger deduction must be made from the amount of apparent evil at any one time visible in the world. All the inequalities in the lot of mankind, which have prompted what are perhaps the bitterest of all complaints, and have served sceptics like Hume and J. S. Mill as a reason for the darkest imputations upon divine justice in the government of the world, disappear from the picture altogether. Excepting only, what we have just considered, the retributive consequences of more or less sin, there are no inequalities. All start from the same point, and journey through the same vicissitudes of existence, exhausting sooner or later all varieties of condition. Prince and peasant, bond and free, barbarian and cultured, all share alike whatever weal or woe there is in the world, because all must at some future time change places with each other. But after these two large deductions from the amount complained of, what remains? Very little, certainly, which we cannot even now see through; that is, which we cannot assign an adequate reason for; and to the eye of faith nothing remains. The world becomes a mirror which reflects without blot or shadow the infinite goodness of its Creator and Governor. Death remains: but that is no evil. for what we call death is only the introduction to another life on earth, and if this be not a higher and better life than the one just ended, it is our own fault. Our life is really continuous, and the fact that the subsequent stages of it lie beyond our present range of immediate vision is of no more importance, and no more an evil, than the corresponding fact that we do not now remember our previous existence in antecedent ages. Death alone, or in itself considered, apart from the antecedent dread of it, which is irrational, and apart from the injury to the feelings of the survivors, which is a necessary consequence of that attachment to each other from which so much of our happiness springs, is not even an apparent evil; it is mere change and development, like the passage from the embryonic to the adult condition, from the blossom to the fruit.

Only one question remains, and it may be very briefly mentioned, as a full discussion of it evidently transcends the limited powers of a finite mind. This series of successive lives on earth, is it to be endless, or will it culminate at last in some grand manifestation of infinite justice and mercy combined? The answer in general terms cannot be a matter of doubt; for the scientific reason confirms what revelation also teaches, that this world had a beginning, and that it must also have an end. It is not more certain that "in the beginning, God created the heavens and the earth," than it is that the period will come when the present succession of days and nights will cease, and, the grand term assigned for probation being closed, all mankind must appear to meet their Judge. This is what John foresaw in the apocalyptic vision, when he beheld the angel stand upon the sea and upon the earth, who "lifted up his hand to heaven, and sware by Him that liveth for ever and ever that there should be time no longer."

We may even reverently conjecture what the nature of the account will be which each one must then render of all that he has thought or done during the whole period of his probation in the body. Most persons are acquainted with the facts, for they are numerous and well authenticated, which go to prove that the

latent and undeveloped powers of memory are vastly greater than those which are consciously under our control at any one time under ordinary circumstances; and that abnormal mental excitement, such as often results from high fever, delirium, or the passion and ecstasy of imminent and sudden death, may bring out into luminous consciousness all those stores of recollection which had thus been buried for many years. Leibnitz first directed attention to these singular phenomena; Coleridge cited from the German a remarkable case in point; and Sir W. Hamilton has collected a number of instances of such wonderful revival of memory. Whole languages, acquired in early childhood, but wholly forgotten in maturer years, have thus been recovered. Most old men, I suppose, have been perplexed at times by flashes and gleams from the memory thus occasionally stimulated into new life and vigor. The conclusion to be drawn from such phenomena is obvious enough, and cannot be better stated than by Coleridge, in his "Biographia Literaria," chap. vi.:

"As we cannot rationally suppose the feverish state of the brain to act in any other way than as a stimulus, this fact (and it would not be difficult to adduce several of the same kind) contributes to make it even probable that all thoughts are in themselves imperishable; and that, if the intelligent faculty should be rendered more comprehensive, it would require only a different and apportioned organization, the body celestial instead of the body terrestrial, to bring before every human soul the collective experience of its whole past existence. And this—this, perchance, is the dread Book of Judgment, in whose mysterious hieroglyphics every idle word is recorded! Yea, in the very nature of a living spirit, it may be more possible that heaven and earth should pass away than that a single act, a single thought, should be loosened or lost from that living chain of causes to all whose links, conscious or unconscious, the free will, our only absolute Self, is coextensive and co-present."

FRANCIS BOWEN.

THE SILVER QUESTION AND THE INTERNATIONAL MONETARY CONFERENCE OF 1881.

A S these lines are in writing, the delegates to the Third International Monetary Conference are on their way to their place of meeting. Before the words here written can be printed the deliberations of that body will probably have been brought to a close, and their conclusions will have become more or less distinctly known to the world. Nothing which can now be said can have any influence in affecting those conclusions; but as, whotever they may be, it is entirely too much to expect that they will give universal satisfaction, the subject will continue long to be discussed, and the public will be interested in the discussion.

It is a fact worthy of mention here that the motive which led to the call of the earliest of these international councils was very different from that which has prompted the later. Before 1867 the exciting controversy which has in more recent years been styled the "battle of the standards" had not begun. It was in that assembly indeed, and while its deliberations were in progress, that the war first regularly opened. The motive of the convention itself, however, was the hope of advancing, through its instrumentality, the progress of a movement which, with steadily growing activity and success, had been already going forward for about three quarters of a century, having an object no less important than the establishment among all nations of a perfect uniformity in the chief instrumentalities of commercial intercourse, the weights, measures, and moneys of the world. almost endless diversity which from the earliest times has prevailed in the modes of estimating the quantities and values of exchangeable commodities in commerce has been one of the

most serious hindrances in the way of that intercourse between nations on which progress in civilization is so largely dependent.

It is a curious fact that the conception of a scheme so pregnant as this, with consequences of incalculable benefit to the human race, should have first presented itself to a European monarch in so dark a period of human history as the beginning of the fourteenth century. Philip V., surnamed le long, or the Tall, formed the project of establishing complete uniformity of weights and measures throughout his realm; but which, had it been successfully accomplished, would undoubtedly have induced similar reforms among neighboring peoples. He projected also a reform of the monetary system of France, which failed for a similar reason; but if he effected nothing in his efforts to improve the currency, he had at least the merit of leaving it in no worse condition than he found it—a remark which can hardly be made with truth of any of his predecessors, or even of his successors down to the middle of the eighteenth century. The noble disposition of this young monarch, who died prematurely in his 28th year, may be inferred from the reply which he made to certain courtiers and pretended friends, when urged by them to crush a supposed enemy: "Il est beau," he answered, " de pourvoir se venger, et de ne le pas faire." 1

The great reform so early projected by this enlightened ruler ceased with his premature death to occupy the minds of men; and for nearly five centuries it remained in the state of an abstract beau ideal, deemed probably incapable of a practical realization. At length, however, in the year 1790, it was energetically revived by a man destined to bear a conspicuous part in his country's history, the famous and sagacious Talleyrand, who in the year just named laid before the constituent assembly of France a proposition to invite the concurrence of the leading European nations in a scheme for the construction, on scientific principles, of a system of weights and measures for the common use of all mankind. The scheme so constructed it was proposed to substitute in place of all the endlessly numerous, discordant, and illogical systems then actually existing. The plan was favorably received, and in the first measures taken toward its prosecution

¹ Biographie Universelle, tom. 34, art. "Philippe le long."

France had the co-operation of Spain, Italy, Switzerland, the Netherlands, and Denmark. In the subsequent commission appointed to meet, and which in 1799 at length actually met, to settle the exact length of the unit-base of the system, derived from the great meridian survey which had occupied the intervening years, there were present the representatives of ten different governments.

Altho the original creation of a system involving, like the metric, for the determination of its first element, a great geodetic operation, extending through the third part of the lifetime of a generation, was in itself a work of vast magnitude, the introduction of the system into actual use after it had been perfected was an undertaking still more formidable. The first was an enterprise falling within the domain of exact science, and its successful accomplishment involved no question but that of time; the other was the task of statesmen who have to do with the whims and prejudices of men, and who often find their most earnest efforts for the public welfare frustrated by coming into collision with prescriptive usages and with the long-established habits of the many. Thus the metric system, real and immeasurable as are the advantages which, from the simplicity of its theory and the facility it introduces into calculations, it offers over every other for the transaction of the business of life, did not find immediate acceptance even in France; and it made its way still more slowly among neighboring peoples. About the middle of the present century, however, it had been legally and practically established not only in France and her colonies, but also in Spain, Portugal, Switzerland, Denmark, Greece, and some of the South American republics; and from that time onward adhesions were frequent on the part of other European powers. Among these there were, in Germany, Würtemberg, Bavaria, Baden, and Hesse, and, in Italy, Piedmont, Parma, Modena, the Pontifical States, and Naples. The system was also adopted on this continent by Mexico in 1856, and it extended itself gradually throughout the greater part of Central and Southern America, having been legalized in Brazil in 1862. This so rapid progress of a reform so important, a reform which has since extended itself to embrace the entire civilized world with the exception of Russia and the English-speaking peoples, stimulated a very gen-

eral desire to see the same degree of uniformity prevailing among the nations as to their means of estimating values which had already become so nearly universal in their modes of measuring quantity. A striking evidence of the prevalence of this feeling was seen in the proceedings of the Fifth International Statistical Congress held in Berlin in 1863. The object of these congresses, of which there have been held nine up to this time, has been to insure a thorough exploration of all the sources of national wealth and national strength throughout the world, as a basis on which to found enlightened legislation, and as a guide to direct the councils of international diplomacy. The nature of its avowed design rendered it necessary that this body, gathering its material indifferently from all lands, should adopt some common mode of estimating quantities; and it seemed almost equally necessary that there should be also employed some single system of estimating and computing values. It cost, of course, no long deliberation to arrive at the conclusion that for quantities the metric system of weights and measures should be used in all the proceedings of the congress and in all its published documents; but the money question was not so easily settled. The question of standard metals was not raised; but a very lively debate arose as to the proper unit of value. The pound sterling, the dollar, the florin, and the franc (the marc had not yet been created), all had their advocates; but neither party could command a majority of voices, and the congress arrived at last at the impotent conclusion that it would be advisable to conserve all these types.

Thus the congress could not agree upon a type; but the outside world who interested themselves in this matter were not on that account discouraged. On the contrary, there spread itself every day more and more widely a feeling that this object was one which was not only capable of being accomplished, but which ought to be accomplished, and which another conference called expressly *ad hoc* could not fail to accomplish. And out of this feeling grew the International Monetary Conference of 1867. It was expressly called to devise a scheme for the practical unification of the money and coinage of all nations. At the opening of the session this object was distinctly announced by the president.

The main question before this body was of course the question of an international monetary unit; but the discussion of this brought into immediate and unavoidable prominence the associated question, In what metal shall the representative of the common unit be struck? This question proved to be so absorbing in the interest it awakened that it occupied the attention of the conference for several days, to the exclusion of everything else. Three distinct propositions were presented for consideration: I. To adopt the single standard of silver. This was rejected with entire unanimity, altho one half of the delegates voting were representatives of countries in which silver was at the time the standard actually existing. 2. To adopt the single standard of gold. In the discussion of this question, the entire argument in favor of the only remaining alternative, viz., the double standard of both gold and silver, was urged with persistence and ability, especially by Mr. Wolowski, representing France, who sustained that view with remarkable zeal and ingenuity. The conference, however, in the end approved the single gold standard by a vote which lacked but a single voice of unanimity, and thus practically disposed of the third and only remaining alternative—the double standard—at the same time.

The question of the standard metal was, however, only secondary to the main object for which the conference assembled, which was to decide on, if possible, and to recommend for universal and exclusive adoption, a common system equally of money of account and of its representative coinage, to be substituted for the variety of systems in actual use among the nations. This question was formulated in the following words, which we copy from the supplementary report on the proceedings of the conference, made in April, 1870, to the Department of State of the United States, by the Hon. Samuel B. Ruggles, delegate to the conference:

"By what means it is most easy to realize monetary unity: whether by the creation of a system altogether new and independent of existing systems, or by the mutual co-ordination of existing systems, taking into account the scientific advantages of certain types, and the numbers of the populations which have already adopted them?"

The first of the alternatives here presented, tho advoca-

ted by the representatives of Holland and Belgium, on the ground of scientific simplicity and because it would avoid all national susceptibilities, was rejected as involving insuperable difficulties, not the least of which would be the necessary recoinage of all the gold in circulation throughout the world. On the other hand, in considering the possible co-ordination of existing types, the national type of France had in its favor the consideration that the amount of the gold coinage represented by it, and in actual circulation in the states of the Latin Union, was hardly inferior, according to the best estimates obtainable at the time, to that of the entire gold coinage of all the other nations of the earth put together.

This consideration, with the additional one that the franc is nearly the fifth part of the dollar of the United States and the twenty-fifth part of a pound sterling of Great Britain, while Austria was at that very moment negotiating a monetary treaty with France for the assimilation of the coinage systems of the two countries by issuing pieces inscribed 10 florins, 25 francs, Roumania had actually adopted the French coinage, and Spain, Sweden, and Greece had given evidence of their readiness to do so, operated with such force upon the minds of the delegates as to bring them at length to the conclusion, with only one vote in the negative, to recommend to their respective governments that they should adopt, as the unit of the proposed international coinage, the weight in gold nine tenths fine of the existing gold piece of five francs.

To say that the recommendations of this conference were without influence upon subsequent legislation among the nations would be an error; altho it is quite certain that in regard to the principal end for which it was called together the conference proved a complete failure. Neither Austria nor Sweden fulfilled the promise held out by those governments in 1867 of adopting the proposed international unit; and in the United States, tho the effort to secure this result was pressed with great energy, ability, and persistence, the impression produced was so greatly disproportioned to the amount of zeal displayed as to overwhelm the advocates of the measure with discouragement.

But the secondary recommendation of the conference, favoring the single standard of gold and condemning the double

standard, did not prove equally fruitless. This was no doubt one of the causes, perhaps not the least weighty, inducing the government of the German Empire to abandon the silver standard which had prevailed in most of its constituent states previously to the union in 1870, and to adopt the gold standard in its stead. This was one of the reasons, but not the only one. Silver bullion was at the time at a premium in the doublestandard nations, where the legal relation of value between the metals was as 1:151; and gold was therefore in fact the standard in France and throughout the Latin Union, no less than in the gold-standard countries of Great Britain and Portugal. The statesmen of Germany, accordingly, very naturally desired to put themselves upon the common European basis. Tho the mint of France was open to the free coinage of both metals for all comers, yet silver had almost ceased to be offered for coinage; so that between 1856 and 1867 not a single full legal-tender coin of silver had been struck in that country. The small coinage, from two-franc pieces downward, had only been maintained in sufficient quantity for the ordinary petty traffic of every-day life, by the issue of a debased currency of limited amount and legal tender only in sums not exceeding fifty francs. In adopting, therefore, for the imperial coinage a system of gold monometallism, Germany was only conforming in her law to a state of things which actually at the time existed all around her in fact, and yielding to a tendency which seemed to be carrying all the great commercial nations in the same direction.

But it was a necessary consequence of this action of hers that she had no longer need of the large amount of silver in circulation among her people, which was supposed to amount to not less than \$400,000,000 in value. This, after 1871, she commenced calling in; and a portion of the old coin thus obtained she recoined to serve as a subsidiary currency. The law regulating the coinage restricts this description of coin to an amount not exceeding ten marcs, or two and a half dollars, per head of the population; and thus there has been absorbed something over \$100,000,000 of the stock of demonetized silver. The remainder, as called in, has been offered by parcels for sale in the bullion markets of the world. A very large proportion remains still in circulation up to the present time, and about \$75,000,000

are said to be now lying in the hands of the government. When this action of the German Government took place, several circumstances conspired to render the occasion unpropitious for so heavy a financial operation.

The populous empire of Russia (double standard) and that of Austro-Hungary (silver standard), having suspended specie payments, the first in 1857 and the second in 1868, were no longer purchasers of either metal; and Italy, a double-standard nation, which had suspended in 1866, was coining only the limited amount which her relations to the Latin Union permitted; and coining that not so much for use at home, as for circulation in the territory of those of her associates of the union as were still paying specie.

It happened also, inopportunely, at the same time, that the amount of the so-called "council-bills" drawn in London on India, from about £4,000,000 in 1867-8, had been annually and rapidly increasing, till in 1872-3 the total had reached the enormous sum of £14,000,000, or \$70,000,000. Thus the outflow of silver from Europe toward the great eastern dependency of the British Empire, with its practically unlimited capacity for the absorption of that metal, was for the time being checked or entirely arrested, and a market for the silver of Germany had to be found nearer home. Nor, if the theories of the advocates of the double standard are to be relied on, should there have been any difficulty in finding it. The demonetization of silver in Germany did not affect in any way the amount of the money metals of Europe; it involved only the necessity of a change of place of a portion of them. It is the special merit of the double standard, as the defenders of that system maintain, that it allows such change of place to occur without disturbance of the relations between the two metals. The double standard is in fact, according to them, the great equalizer which, like the governor of the steam-engine, makes the driving power, which is money, uniform in effect throughout all the vast machinery of the commercial world. Just in proportion as the silver of Germany was withdrawn from circulation it was necessary that the vacuum thus created should be filled up with gold. This demand of Germany for gold is spoken of by many as a fearful thing, threatening to create a monetary famine throughout the world.

The alarm is continually sounded that the world has not gold enough to provide for the money wants of all nations. that is not the question in issue here at all. The question is only whether, so long as throughout the larger part of Europe silver continued to be the material of legal-tender money, while among more than half the populations of the Continent the double standard prevailed, we ought not to have had a beautiful example of the saving influence of this double-standard principle in the emergency presented. According to the estimates made by Mr. Ruggles in his supplementary report on the monetary conference of 1867, the states of the Latin Union alone had \$1,250,000,000 of coined gold in their possession; while the total amount of silver in all its denominations in circulation throughout Germany reached only about the sum of \$400,000,000. Certainly, if the principle of the double standard is worth anything, there ought to have been no perceptible impression produced upon the money market by allowing all the silver which Germany could possibly gather, and which has hardly exceeded the half presumed to be in circulation, to be bought with French gold and coined at the French mint. Even had there been German silver enough to displace all the French gold, nobody ought to have been concerned about the matter. On the other hand, according to one of the most thorough of the champions of the double standard, such an occurrence, had it taken place, ought rather to have been regarded with satisfaction if not with triumphant gratification.

"In the past history of the case," observes Mr. Weston, "the actual use of only one of the metals, arising from their market fluctuations, has been one of the most familiarly known occasional results of the double standard, and has always been insisted on by its supporters as one of its capital recommendations; because it insures the use of the more abundant and therefore better money, and tends to lessen the dearness of the dearer money by furnishing it to the markets of the world." (The italics are ours.)

It seems to be a sad pity that the conference of the Latin Union, held as early as January, 1874, immediately after Ger-

¹ The Silver Question. By Geo. M. Weston. New York, 1878. (p. 87.)

many began to move in this matter, failed so completely to "insist" on this "capital recommendation" of the system which it was the business of the union to maintain, that they resolved to limit the coinage of the "better money" for the year then commencing, and for all the associated states, to less than \$25,000,000; against which they charged at the same time \$10,000,000 already delivered from the mint on certificates of December, 1873, so that the actual amount allowed was only about \$15,000,000, and only a portion of this was actually coined. Similar limitations were imposed in each of the years successively following, until, just after the adjournment of the abortive International' Monetary Conference of 1878, the mints were closed against the coinage of legal-tender silver entirely. The Latin Union, instead of giving a hospitable welcome to the rich flood streaming over her boundaries from Germany, threw up dikes to shut it out and keep it back.

Now it is worthy of note that when they thus resolved to repel the fertilizing streams of German silver from their territory, it was not in the least necessary that they should buy this silver with their own gold. They might have let Germany find her gold where she could. All that France had to do was to keep her mint open, and to allow the holders of the silver, whoever they might be, to bring it there for coinage into pieces of five francs. New blood would thus have been infused into all the veins of French industry; and if there is any truth in the theory that the more a people have of money the better they are off, France, instead of finding herself in 1881 in a monetary strait-jacket, and having half her legal-tender coin depreciated to a point at which it is totally unavailable for use except in petty transactions of retail traffic, might have been to-day the happiest nation on the face of the earth.

The double standard was therefore killed in the house of its friends, in what ought to have been, if there is any true philosophy at the bottom of its theory, the very hour of its most signal triumph. Had not France and, following her example, the Scandinavian states and the Netherlands practically demonetized silver themselves, it is not conceivable that the act of Germany could have disturbed in any manner the monetary equilibrium in Europe. The amount of money would not have been in the

slightest degree affected by that act. There would have been an exchange between neighboring countries of the coin in circulation within their respective borders; nothing more.

Why then did France pursue a course so apparently, on her own theory, suicidal? Beyond any question she did it because she believes that, for a great commercial nation, gold is a more desirable material for coinage than silver. In this respect her opinion is shared by the great majority of the most intelligent people of other nationalities. There can be no doubt that this is the intelligent view of the subject taken in the United States.

During all the time that this movement was going on upon the other continent, it happened providentially that the people of the United States had no interest whatever in the turn the affair should take. For more than ten years not a single coin of any description, gold or silver or copper, had been in circulation throughout our entire territory. During all the eighty years up to 1873 which had passed since the establishment of the mint, we had coined but eight millions of silver dollars, or about \$100,000 a year; and for nearly forty of these years we coined no such dollars at all. Such silver dollars as had been coined had disappeared from circulation, their value as bullion having been greater than that for which they were receivable as coin, and consequently, in the statute adopted in 1873 reorganizing the mint, provision for the further coinage of the silver dollar was very judiciously omitted; and the revised statutes with equal propriety provided, in the year following, that this piece should be coined no more. This was simply recognizing in law a state of things which had existed in fact for about half a century. If ever since the world began there was offered to a nation a more fitting opportunity for illustrating the wisdom of the maxim to let well enough alone, the opportunity was in The occasion was nevertheless seized by polithat crisis ours. ticians for throwing the country into an excitement almost without a parallel, by charging the disastrous fall in the price of silver in the London market as a consequence of the coinage act of 1873; and charging further that the provision of that act in regard to the silver dollar had been procured by secret and artful practices of the moneyed men in Wall Street and Lombard Street for their own selfish purposes. It was even asserted,

and it has been constantly maintained down to this day, that the Congress which passed the act and the President who signed it did not know what it contained—a signal example, if true, of the carelessness with which legislation often goes on in Washington: but in this case the more wonderful from the fact that the bill was under discussion in two successive congresses, was printed in both newspaper and pamphlet form and widely circulated, and that its provisions were familiar in all their details. for months before its final passage, to most of the more intelligent among the people who interest themselves in such things. For an entire quarter of a century before this enactment the coinage of silver dollars at our mint had not amounted to six millions of dollars in all. This fact alone suffices to show the absurdity of the assertion that the stoppage of such coinage. under the operation of the act in question, could have in any manner influenced the price of that metal. Moreover, this legislation, so far from having been brought about by dishonest influences exercised by interested men, was due to the advice of the finance officers of the government itself; for the very sufficient reason that, as prices then stood, silver bullion uncoined was worth about three per cent more than the same metal coined into dollars: so that all the dollars issued from the mint were immediately exported, or melted up and converted into bullion again.

It has been said already that the act of 1873 demonetizing silver was an act which simply recognized in law a state of things which had already existed in fact in our country for about forty years. In this respect our experience and our history were but a repetition of those of Great Britain in 1816 and earlier; for in the year named England had been practically a gold-standard country for the whole preceding century. The entire monetary history of that country indeed, from the period of the first introduction of gold into the coinage under Henry III., has been one long-continued illustration and demonstration of the utter powerlessness of law to maintain in permanent circulation side by side both the precious metals as money at the same time. The very first experiment of this kind resulted in a failure so complete and absolute that it was not repeated for nearly a century. Gold coins seem indeed to have been struck in Britain as early

as the time of the Romans, and also later under the Saxon and Danish kings; but these with all other traces of that primitive rule disappeared on the advent of the Conqueror. In the letter on the coinage of Great Britain addressed by Lord Liverpool in 1805 to his Majesty King George III. there is presented a very lucid and interesting history of the vicissitudes to which the monetary system of the kingdom has been subjected, and of the chaotic condition into which it has been repeatedly thrown, by governmental tampering with the currency. For almost three hundred years after the Conquest the only coinage in circulation in England was of silver; and the only form of silver coin struck was the penny, of the weight of 22½ grains, making it a little heavier than the present half-dime piece. This penny was deeply marked by a cross dividing it into four equal parts; and for smaller payments it was customary to break it through these divisions into halfpennies, and quarters or fourths—whence the The first gold coin struck after the Conquest modern farthing. was issued by Henry III. in 1257, and was also called a penny. It had twice the weight and twenty times the nominal value of the silver penny, from which it appears that gold was then rated to silver as ten to one. Gold seems at this time to have been very cheap in England, and the people by common consent refused to receive the gold penny. Lord Liverpool says that the citizens of London made representations against this coin, and the king found himself obliged by proclamation to deprive it of its legal-tender character. It was of course soon driven out of use. A like fate, and for the same reason, befell the coin of the same metal issued about a century later by Edward III., in 1345, called a florence or florin. This coin, like the former, proved unacceptable to the people; and, after having been at first made by proclamation optionally receivable, was within a few months after its issue withdrawn from circulation.

This monarch, however, succeeded at length in the establishing gold as a part of the coinage; but such was the instability of the ratio between the nominal values of the two metals that the legal ratio during his own and subsequent reigns was subject

¹ A Treatise on the Coins of the Realm, in a Letter to the King. By Charles, Earl of Liverpool. Oxford 1805.

to continual changes. He himself first fixed this ratio at 1:12% nearly; but this he afterwards altered to 1:11%, and in the course of the ten years following he made two additional changes. Neither of these was great, but experience has shown that only a very slight discrepancy between the legal and commercial ratio is necessary to produce an active traffic in the coins and a rapid disappearance of one metal or the other. As illustrations of this some examples reported by Sir Isaac Newton in 1717 are He states that in the reign of William III. louis d'ors of France were current in England at 17s. 6d., when they were actually worth but 17s. 3d.; and that when by a royal proclamation it was ordered that these coins should be received for only 17s., they immediately disappeared. The profit made by their importation was over two per cent, which was of course a considerable temptation; but that on their exportation was only 3 of one per cent; yet they disappeared. At another time moidores of Portugal passed in England for 28 shillings, being worth only 27s. 7d. Being reduced by proclamation to 27s. 6d., they also disappeared. The profit this time on importation was one and a half per cent; on exportation only one third of one per cent. So that a change apparently insignificant in the legal ratio between the metals often serves to drive one or the other out of circulation altogether.

The struggle to maintain both metals in the coinage was continued from the time of Henry III. down to the accession of George I. early in the eighteenth century—that is to say, for more than five hundred years; but at this last-named epoch it was definitely abandoned, and silver has since ceased to be used in England except for petty retail traffic.

During the reigns of James I. and Charles I. this struggle was very energetic. It ceased temporarily to occupy attention under stress of more urgent affairs, during the great rebellion and the Commonwealth. But after the Restoration, and down to the accession of William of Orange, it went on actively, one metal or the other disappearing from circulation after every fresh effort to prevent this annoying result. The two monarchs named above, in addition to employing the natural means of accomplishing their object, which consists of course in endeavoring to conform the legal ratio of values accurately to the com-

mercial ratio, invoked the terrors of the penal law and exercised all the powers of the High Court of Star Chamber to deter men from the grave misdemeanor of melting down the coin or carrying it out of the kingdom.

After the Restoration, the rise of the value of gold continuing, Charles II., in coining a new 20 shilling piece under the name of the guinea, reduced its weight below that of the piece of similar nominal value issued by James I., and which he had called a laurel: but the reduction was not sufficient to put it into proper adjustment with the silver coins in circulation, and hence the kingdom was again menaced with a loss of its gold as complete as had occurred in the beginning of the reign of the last-named monarch. But here, by a common consent among the people, an expedient was adopted by which this misfortune was prevented, or at least mitigated. This was to receive and pay the guinea not at its mint value, but at its value relatively to silver (which was always the practical standard) in the The guinea therefore passed for 21 or bullion market. 22 shillings, and it is stated by Locke that "the gold coins varied in their values according to the current rates." This practice seems not to have pleased the government, for Lord Liverpool says there is an order on the council-books for enforcing the currency of the guinea at 20 shillings; but he adds that it was never issued, and that if it had been, it would have driven all the guineas out of the country.

During the successive reigns of Charles II. and his brother the silver coin of England became greatly depreciated by clipping and abrasion; and at the accession of William of Orange it was found, by a careful examination of the exchequer, that they had lost on an average nearly half their weight. A report of Mr. Lowndes, secretary of the treasury in 1695, states that this condition of the coin (silver being the general standard of value) occasioned "great contentions among the king's subjects in fairs, markets, and shops, to the disturbance of the public peace;" that it embarrassed bargains and greatly diminished trade; "that persons before they concluded any bargain were necessitated first to settle the price or value of the very money they were to receive for their goods, and that they set a price upon their goods accordingly;" also "that these practices had

been one great cause of the raising of the price not only of all merchandises, but of every article necessary to the sustenance of the common people, to their great grievance." He further states that the guinea, in consequence of the deplorable condition of the silver coin, had risen so as to be current for 30 shillings, which was "much higher than the state of the bullion market would justify;" and that consequently "silver bullion, instead of being brought to the mint, was exported to be sold abroad for gold, in which foreigners made their payments, to the great detriment of the merchants and manufacturers of England." In this embarrassing state of things the government sought the advice of eminent men of science, among them Sir Isaac Newton, who was made warden of the mint, and under whose supervision the silver coinage was thoroughly reformed. Before this was accomplished the guinea was, by successive orders, reduced in current value first to 26 shillings, above which it was not lawful to pay or to receive it, and afterwards to 22 shillings, at which nominal value it remained till 1717, when it was reduced to 21, at which point it remained permanently fixed.

After the completion of the recoinage, it was supposed, or at least hoped, that the price of silver bullion in the market would fall to the mint price; but the guinea continuing to be overrated in popular esteem, it did not do so, and consequently silver coin began to be exported for the purchase of gold bullion abroad, as silver bullion had been before the recoinage. Hence, in 1717, Sir Isaac Newton said that "if silver money should become a little scarcer, people would in a little time refuse to make payments in silver without a premium." He showed that the real value of the guinea in silver was only 20s. 8d., while it was passing current at 21s. 6d., and he recommended that its legal-tender currency should be reduced to 21 shillings, which was done, the other gold coins being reduced in proportion. But as this reduction was not sufficient, silver continued to be exported, and silver soon ceased to be the practical standard of value in England. From that time, consequently, except for petty traffic, it has ceased to be in circulation in England altogether; or, in the words of Lord Liverpool, "from this period all considerable payments have been made in the gold coin; and the silver coins have generally served in making small

payments, or in exchange for the fractional parts of gold coins. Previous to this proclamation (fixing the guinea at 21 shillings) the people were disposed to make their payments in the gold coins in preference to those of silver. This last measure tended to confirm what was before the disposition of the people, and gave to the gold coins a complete ascendency in the currency of the kingdom; and the silver coins have since become a mere representation of the gold coins, for the purposes before stated. The greatest part of the good and weighty silver coins which then remained have since been melted down and exported." He adds that from 1717 to the end of the eighteenth century, a period of eighty-three years, not so much as £600,000, equal to \$3,000,000, in silver had been coined in England; and that in the last forty years of the century less than £64,000, equal to \$320,000, had been coined; that is, only £ 1600, equal to \$8000 per annum. The legal ratio of value between the metals fixed by this last royal determination was $1:15\frac{2859}{12640}$; and the entire rise in the value of gold from the time of Henry III. was $47\frac{6511}{21420}$ per cent. Of this $32\frac{56}{67}$ occurred within sixty years after the accession of James I.

It was therefore not, as is commonly said, by the act of Parliament of 56th George III., but by the proclamation of 3d George I. above mentioned, that the demonetization of silver in England was for all practical purposes accomplished; but this effect, which followed that proclamation by the simple operation of natural laws, was confirmed by statute law fifty-seven years later, when, by act of Parliament of 1774, it was declared "that no tender in payment of money made in the silver coin of this realm of any sum exceeding the sum of £25 at any one time shall be reputed in law or allowed to be legal tender within Great Britain and Ireland."

But tho this statute demonetized silver as early as the year 1774 by destroying its legal-tender character except for a limited amount, it did not reduce that coinage to a purely subsidiary position. That was the special effect which the act of 56th George III., in 1816, did accomplish by reducing the weight of the shilling from $\frac{1}{62}$ to $\frac{1}{66}$ of a pound of standard silver, and limiting the legal tender to sums not exceeding 40

shillings. Great Britain has therefore been a gold-standard nation for nearly two centuries, instead of less than one as is commonly stated. She became so in consequence of an ineffectual struggle of several centuries to maintain the double standard; during the greater part of which time silver was her actual standard and her preference.

Our own briefer history is entirely similar. Having established our coinage in 1702 upon the ratio, supposed at the time to be the commercial ratio, of 1:15, our gold coins disappeared as fast as they were issued from the mint, and in fact the coinage of gold was very small. On the other hand, the facilities of the mint were not sufficient to supply the demand for coins of the cheaper metal, and we were flooded with Spanish silver for nearly forty years. We too, in 1834 made a readjustment of the relation between the metals, as England had done before us so often; but our experience was precisely that of King James: we made the change too great, and our silver disappeared as rapidly as our gold had done before. We submitted to this, and in 1853 provided against the loss of all our small money by reducing the fractional silver to the condition of a subsidiary overrated token currency of limited legal-tender character, precisely as England had done in her law of 1816. And the act of 1873 discontinuing the coinage of the silver dollar was, like the last-mentioned act of the British Parliament, simply a recognition of the existing condition of things.

Such being the case, the fact that we should have allowed ourselves, in a season of universal tranquillity and contentment, to be suddenly embroiled in an affair in which the consequences of our meddling could only be certain harm to ourselves and probable harm to others, admits of no explanation except on the supposition of one of those accesses of popular delusion and folly of which so many have marked the history of mankind. The harm to ourselves was certain; since, had the plan originally proposed of throwing our mint freely open to all comers been carried out, the refuse silver of Germany, and not only that but the silver coin of the Latin Union, Holland, Denmark, Sweden, and Norway, would have poured in upon us all together, and gold would have disappeared from our land at once and

forever. That disaster was momentarily averted, but its coming was only postponed; for the operation of the law actually enacted is bringing it nearer to us every day.

The harm to others also was more than probable, since the advocates of the double standard in Europe saw very clearly that to open the American mint to silver was likely to drive European governments generally into adopting in law, as they have already done in fact, the single gold standard. The ablest and most sagacious of all these economists, Mr. Henri Cernuschi, has been unceasing in his protests against this supreme of follies on our part; and he took the trouble to come all the way to this country in 1876 to make his protest before the Congressional silver committee of that year. Of that committee Mr. Richard P. Bland of Missouri was a member, and the response to the protest was the introduction into the House of Representatives of the notorious Bland Bill.

But even supposing there had been wisdom in a movement in this matter on our part, the form in which our movement was made was unwise to the last degree. It was insisted that we should coin once more the dollar of 4121 grains, sentimentally called the "dollar of the fathers of the republic." But to do this requires the preservation of the ratio to gold of 1:16, while the leading European states are agreed on a ratio of 1:151. The inevitable consequence must be that, in case the free coinage of silver is recommenced in foreign mints-the thing which our bimetallist friends profess to hope for and desire—our entire legal-tender silver will be exported and melted up for recoinage abroad. This is not a result which depends in any manner upon the price of silver. Whether silver is dear or cheap, it will pay a profit of 31 per cent to melt up dollars and coin them into pieces of five francs. We have coined between eighty and ninety million silver dollars since the passage of the Allison Bill of February, 1878, and our only security for the permanent existence of a single one of these coins lies in the possibibility that the Latin Union may refuse to coin silver any more. For the hope that they will adopt our ratio of 1:16 has not a shadow of foundation. They expect to drive us to the adoption of theirs; which we cannot do without equally condemning our \$80,000,000 already coined to the melting-pot.

Thus the inconsiderate rashness with which the forty-fifth Congress rushed into the coinage of the dollar of 412½ grains has no parallel except in the blindness and folly which led to the coinage of the silver dollar at all.

Several special arguments are urged in defence of the remonetization of silver in our country, to which in conclusion it is proper to give a moment's attention. It is said, first, that silver constitutes half the money of the world, and that to deprive it of its character as such would be an infinite wrong to mankind. Very well, then let it continue to be money. The question at present is not what is good for the world, but what is good for us here in the United States.

If silver is needed for the world's money, as it probably is, it will continue to be used where it is needed. Suppose that all nations should prefer gold, but that all cannot get gold; those who cannot will use such money as they can get. But all do not prefer gold by any means; and more than half the population of the globe do most decidedly prefer silver, and are likely to do so for centuries, if not for all time. Hindostan, Burmah, Siam, the Philippines, and the Chinese Empire not only employ silver for money, but they consume quantities of it for personal ornament and for other purposes of luxury. If the present low price of silver has been really caused, as is claimed, by the adoption of the gold standard in Germany and the cessation of silver coinage in the mints of the civilized world, it cannot be permanent; and it will be followed by a rise when the free flow to the East is re-established and the temporary glut of the London market is worked off. In the words of Mr. Bagehot,1 "there is therefore, in the end, a certain market for the silver displaced from Europe; it will ultimately go, as the rest has gone, to the East, where it is the ancient and the best attainable paying medium." The price therefore must ultimately rise to the point determined by the cost of production. But if it has heretofore been sustained artificially above that cost. it " will hardly return to the same level again, nor can the reopening to its coinage of all the mints in the world force it to do so.

But then it is claimed that the production of silver is a great

¹ The Depreciation of Silver. By Walter Bagehot. London, 1877. (p. 3.)

industry, and an industry peculiarly our own; also that our silver mines are a source of incalculable wealth: consequently, that to refuse to coin silver—that is, to buy it—is to discourage that industry and to check the development of our abundant natural resources. To this it may be replied, that any industry which cannot live unless it is supported by the state, had better, to the full extent to which that is true, be abandoned. that will pay at the present prices of silver will continue to be worked; mines which will not, may be given up; but it does not follow that the productive energy which would otherwise have been spent on them will be lost to the country. only be turned to something more profitable. As a general. principle of public economy it may be said that a state can commit no greater folly than to pay men for carrying on an industry which is so little needed that it will not pay for itself. There is nothing in the nature of gold or silver to make its production more worthy of encouragement than that of hemp or hay, or rice or cotton. On the other hand, the powerful fascination exercised by the precious metals over the imaginations of men, has made the search for them one of the most demoralizing pursuits in which any people have ever been engaged. everywhere engendered a spirit of reckless adventure and blind trust in chance which has made the whole business little better than a gigantic system of gambling. And if in this grand game it occasionally happens that a great stake is won, it is too true on the other hand that more frequently the players lose all they possess. The amount of capital which has been hopelessly sunk and wasted in our country in ill-judged mining schemes within the last thirty years, according to recent statements published in leading mining journals of this city, reaches a total truly appalling. We are hence compelled to make a heavy deduction from the supposed contributions of these enterprises to the wealth of the country. For these reasons every statesman and every true economist will regard as of something more than doubtful expediency the policy of encouraging by positive legislative action the production of the precious metals as a national industry.

But it is further urged in favor of the rehabilitation of silver, that without a legally established ratio of value between this

metal and gold we have no basis for a par of exchange in international commerce with silver-standard nations. There would be something at least plausible in this if exchanges were usually made at par; but as that is not the case, the par of exchange is useful only as a point of reference, by means of which to state simply the actual rate. It is not in the least necessary to its usefulness that it should be a true par-it may for that matter be entirely arbitrary and false: all that is needed is that it should be fixed. We had a false par between ourselves and England for all the first half of the present century, but it answered its purpose. The par is like the zero of the thermometer—it may be fixed at freezing, as in the centigrade, or at the temperature of melting snow and salt, as in Fahrenheit; but the actual indications are equally accurate in either case. In the absence of law, common consent will soon fix on a mean point about which the fluctuations of the bullion market oscillate; and this will afford probably a better par than any that law could establish.

After what has been said, it is hardly necessary to state our own conviction, that any attempt to constrain a people, by royal decree, by legislative enactment, or by international treaty, to accept a system, political, social, or monetary, to which they are not borne by the natural course of events, and which does not approve itself to their general sense of fitness or need, must be a necessary failure. It is certain that the United States have become a single-standard nation by the force of circumstances; it is certain that a very decided majority of our people do not want the double standard, and do not approve its principle. is next to certain that any arrangement entered into at Paris for the adoption of such a system, in establishing which the greatest of all the commercial nations shall decline to be a party. must prove a failure; and it is more than doubtful whether the concurrence of that nation, which is altogether improbable, could make it a success. Yet we are told that our delegates have departed on their mission "with light hearts," and in the full expectation of triumphantly solving the most knotty problem of the century.

The problem is incapable of solution by any means which the conference is likely to contemplate. For, first, the delegates appear to be practically under instructions to frame if possible

a convention fixing a definite ratio of values between gold and silver, which ratio the assenting nations are to accept and to employ in their coinage. The actual ratio in the market is at present 1:18 nearly. In defiance of this the European bimetallists propose to force the adoption of the French ratio 1:15\frac{1}{2}. Our delegates are expected to yield in this matter, tho our eighty millions of dollars have been coined at the ratio of 1:16. This decision, if it be what is expected, will either control the market or it will not. If it does, the holders of silver certificates in the United States will immediately draw their coin, melt it into bullion, and carry it to the mint to be coined over. If the whole is so recoined, the owners will reap an apparent benefit of two million six hundred thousand dollars; compensated, however, by a probable corresponding fall in the purchasing power of money. In so far as the government is an owner, it will participate in this advantage, whatever it may be worth. But if the decision does not control the market the owners of gold coin will buy silver bullion for coinage, making a profit of a little over 164 per cent so long as the present commercial rate continues. Under these circumstances of course gold will soon cease to form a part of our metallic currency.

But it will be said gold cannot be exported with profit because it will bring no more in a foreign market than in ours. This is hardly true. Unless the oriental peoples come into the agreement gold will soon begin to make its way in India, where it is doing so already under the peculiar financial relations of that country to England; and before many years are past the East will prove a more productive silver mine than the Comstock lode has ever been in its palmiest days. If all the oriental nations could be brought into the agreement a very sensible effect upon the market rate might very possibly be produced, for the coinage demand for silver would so far exceed any other possible demand for that metal as to raise its price; but even this could not overrule and control that more efficient cause which determines finally the price of all commodities, the cost of production. Stamped silver would by force of law be exchangeable for stamped gold, as stamped paper is now; but unstamped silver, like unstamped paper, would have to take its chances in the market. It would, moreover, soon be found that gold coin would possess a greater purchasing power than silver—just as before resumption it had the same advantage over paper; and throughout the world there would be two kinds of money in circulation, legally equal in value, but practically unequal, to the great confusion of business and the great embarrassment of trade.

Moreover, in case England should not be a party to the arrangement, and even probably if she should be, gold would continue to be, as it is now, the real standard of the world; and all the great transactions of commerce would be made with reference to that standard. Furthermore, in the settlement of international balances gold would always be the metal preferred and employed, on account of its superior portability; so that it would steadily accumulate with creditor nations, and be withdrawn from debtor nations.

As the work which the conference have apparently been called together to do is to report in favor of universal bimetallism on the basis of the ratio I: 15½, there seems to be every probability that they will do this work and adjourn. But there is something much better which they might do, and in doing which they might much more effectually serve the interests of mankind. Let them recommend to the world to abandon the artificial distinctions of pounds sterling, dollars, francs, and marcs, and to restore the precious metals to the footing on which they stood when they began first to be used as money; viz., that of simple units of weight. Let our coins of either metal be stamped simply with the number of units of weight which they severally contain, and with the degree of their fineness; and let them find their relative values, as other commodities do, by free competition in the open market. Under these circumstances one metal or the other will be the practical standard of value, and prices will be quoted in reference to that. The other may be equally legal tender, but legal tender only at a relative value determined by the condition of the bullion market. This relation might even be made permanent for brief periods—say for a month or a year at a time—by circular notice issued by the Secretary of the Treasury with the advice of a syndicate of merchants, or of the chambers of commerce of the principal cities; but the relation would probably remain so nearly constant that

these announcements would rarely, and only at long intervals, be anything more than confirmations of the rates previously established.

Under such a system the standard metal would continue in the United States and England to be gold as at present. probability is that the same standard would prevail throughout the Latin Union, Spain, Holland, Germany, and the Scandinavian states. But in all these silver would be equally a legal tender for the payment of debts; only that at present it would only be so at one eighteenth of the value of gold, and not at the present legal ratio of France or of our own country. use of silver, which fully reinstates it in its function as a money metal, its price should rise, all the better. Then its legal-tender efficacy will rise also; and in case of a new and unexampled increase hereafter in the supply of the more precious metal, and an extraordinary diminution of that of the less precious, nothing could prevent the advance of its purchasing power to any extent. In Austria, Russia, Turkey, and all the East the standard metal would probably be silver, and gold would be rated as money relatively to that, varying occasionally in its legal-tender power, as we have supposed silver to do among the more western nations. But everywhere, east or west, both metals would be equally current as money.

A state of things like that here proposed did actually exist in Great Britain from the time of the Commonwealth down to the revolution. Silver was the standard of value; but the gold coins, tho issued at a fixed legal valuation in reference to silver, were nevertheless received and paid, as stated by Mr. Locke, "according to the current rate." No inconvenience was experienced from this practice. On the other hand, it was attended with the great advantage that it prevented the gold from being melted up and exported.

It is worth considering, moreover, that by adopting a series of simple units of weight as coins we shall not be compelled to depart to any inconvenient degree from our ordinary habits of thought in matters of money. Take, for example, as the basic unit one gram of gold nine tenths fine. The value of this in the money of the United States is six dimes less two mills; in that of Great Britain, one half-crown less one halfpenny; in

that of France, three francs ten centimes exactly; and in that of Germany, two and a half marcs plus one pfennig. A coin of ten grams, which would be a little heavier than our half-eagle, would be worth six dollars, or thirty-one francs, or twenty-five marcs, or twenty-five shillings less five pence, with scarcely a sensible error in either case. Such coins could easily be made use of as a part of the existing monetary systems of the leading commercial nations, and might in no very long time supersede them all.

One important advantage which would result from the use of coins like those here suggested would be that they would be instrumental in fixing in the minds of the people the idea of intrinsic value as an essential quality of money, and in eradicating the pernicious notion which seems to have become so popular, and which a no less distinguished man than Mr. Cernuschi has distinctly avowed, that "money is an artificial value created by law." It is to the prevalence of this mischievous delusion that most of the great flood of financial fallacies which have deluged the nations of the earth in modern times, leaving behind them only disaster and ruin, have been mainly owing.

The scheme here suggested is not unsupported by authorities entitled to respect. It was advocated as the basis of an international coinage by Michel Chevalier, the well-known and highly distinguished senator and public economist of France, more than ten years ago. It was proposed in substance for a similar purpose to the Seventh Statistical Congress, held at the Hague in 1869, by the eminent statistician Dr. Farr, delegate from Great Britain. It has been recommended in formal resolutions adopted by the American Metrological Society and by the American Social Science Association, and it has had the approval of many men of sound judgment and large experience in financial matters.

Its adoption by the nations would settle at once and forever the vexed silver question. And if it is true, as has been maintained, that the relation of value between the precious metals, when not disturbed by legislation prejudicial to either, is one of the most stable known to human affairs, this relation, in the free play of exchanges, will soon fix itself with an exactness which no arbitrary rule of statute law can possibly attain; and will remain at the point so determined, with oscillations practically insensible. If it could be counted on as among the reasonable possibilities that a proposition so judicious as this could be the outcome of the present council of the nations, the Third International Monetary Conference might have the honor of triumphantly accomplishing the object for which the first was called; viz., that of giving to the world a system of universal money, destined, by its simplicity and convenience, soon to supersede and obliterate the whole perplexing multitude of local and discordant systems now in existence; and in doing so might leave upon the page of history a record far more enviable than that which now probably awaits it, of having added one more to the innumerable fruitless struggles of the past for the attainment of the unattainable.

F. A. P. BARNARD.

ON CAUSATION AND DEVELOPMENT.

AM not singular in holding that the whole subject of causation has become confused in the minds of educated men, including scientific men; and that the time has come for reconsidering it in the light which science now furnishes. our day two or three doctrines have been elaborated which require us to revise (so I think) the statements made as to cause, more especially in its relation to force and energy. It is to be understood that throughout this paper I refer to causation objective, and not subjective; that is, to causation as it acts independent of our mind observing it (an ignited lucifer-match will kindle a rick of hay whether we notice it or not), and not to the special metaphysical question of ages, as to the origin and nature of our belief in the relation of cause and effect. It is further to be borne in mind that in the body of the article I speak exclusively of physical causation; that is, of the forces or activities of bodies: only towards the close showing that there may be mental or spiritual powers operating in our world quite as certainly as there are physical forces. It has been established that,

First, there is a duality or plurality in causation; that there are two or more bodies in all causal action of a physical nature. There were thinkers who had a glimpse of this doctrine from an old date. Aristotle spoke of συναίτιον, which Hamilton in noticing it translates concause.* But the truth was first clearly enunciated by Mr. J. S. Mill in his "Logic" (B. IV. c. v.) "The statement of the cause is incomplete unless in some shape or other we introduce all the conditions. A man takes mercury, goes out of doors and catches cold. We say perhaps that the cause of his taking cold was exposure to the air. It is clear,

¹ Sextus Pyrrh. iii. 15, speaks of συνεμτικά, συναίτια, and σύνεργα αἴτια.

however, that his having taken mercury may have been a necessary condition of his catching cold; and tho it might consist with usage to say that the cause of his attack was exposure to the air, to be accurate we ought to say that the cause was exposure to the air while under the effect of mercury."

The doctrine had occurred to me before I read Mr. Mill's "Logic:" but as he published it first, I do not claim any credit in it. As approaching it, however, from a somewhat different direction. I believe I can make it more explicit and comprehensive. In all physical action there are two or more bodies, molecular or molar; at the present stage of science I ought to add that this body may be the ether in which the undulations of light take place. Now the cause—by which I mean that which invariably has produced the effect, and will invariably produce itconsists in the mutual action of two or more bodies: that is, their action on each other. Thus in the case adduced by Mr. Mill the true cause of the effect, the cold, was not the air alone or the body alone, but the air and the body under mercury. Without the concurrence, or rather the joint action, of the two, the effect would not have been produced. It is the same in all other cases. A ball at rest is struck by a ball in motion; the one ball is made to move, the other has its motion stayed. cause consists of the two balls in a certain state, and the effect the balls in another state. A picture-frame falls from a wall and breaks a jar standing on a table below. We say that the frame, or rather the fall of the frame, was the cause of the fracture of the jar. But the true cause, that which forever will produce the same effect, is the frame falling with a certain momentum and the brittleness of the jar. Had the frame come down with less violence or the jar been stronger, there might have been no breakage. In most cases of action a considerable number, in some a vast number, and variety of agents combine to produce the result. Take the sprouting of a flower in spring: in the cause there are the increased heat and light of the sun, the state of the plant in the earth, and the state of the soil. Without the concurrence of all these the effect would not be produced.

Secondly, there is a duality or plurality in the effect. This is a further truth which Mr. Mill has not expounded, but which oc-

curred to me as I was thinking out the doctrine which Mr. Mill preceded me in unfolding. It follows from Mr. Mill's doctrine when it is properly understood, and seems to me to be quite as certain and fully more important and of wider range in its applications. Thus in Mr. Mill's illustration the cause was the state of the atmosphere, and the body as affected by mercury; the effect was the same atmosphere insensibly changed in temperature. and the body under a cold. In the second case the true cause consisted of the two balls, one in motion striking the other at rest; the effect (which would be forever produced by the same cause) the ball which was at rest moving and the ball which was in motion at rest. In the third case the cause was the pictureframe with a certain momentum striking a jar of a certain structure; the effect was the frame losing part of its momentum and the jar broken. In the case of the plant germinating there must have been in the effect changes—it may be incapable of measurement—in all the agents acting as the causes in the sun's heat and light absorbed in the earth and in the plant sprouting.

Taking these views with us, it may be of great use to have appropriate and definite phrases to express them. The word Cause, that which invariably produces the effect, should be reserved for the combination of agencies producing the result. The cause of the man's taking cold is not merely the cold atmosphere or his frame being affected by mercury, but in the two acting on each other. The word Effect should in like manner be applied to the combined result, and comprises the change in the air as well as the colded affection of the body. In the other illustrative cases it implies the movement of the one ball and the staying of the other; the loss of momentum in the picture-frame as well as the breaking of the jar; and the change in the rays of heat and light coming from the sun as well as the germinating of the plant.

As causes are dual or plural, it is proper to have phrases to express the parts. The law is often stated that the same cause always produces the same effect in the same circumstances. But in order to clearness and accuracy it is essential to specify what are the circumstances; it is in fact necessary to put them into the cause, as without them the effect would not follow. In order to the germinating of the flower there is not only the state of the plant

and soil, but the additional heat of the sun. All the acting parts may be called agents or agencies, without specifying what they are. They are bodies in a certain state acting on other bodies.

Very often one of these agents is more important in itself, or in our estimation, or for our present purpose, than the others; this is designated pre-eminently the cause, and little or no evil may arise from this provided always that it be understood that this agent needs one or more co-operating agents which are parts of the full cause. If it be said that the cold air was the cause of the man being colded, it was because his body was disposed towards such an issue by mercury. It is not easy, or perhaps even possible, to lay down a rule as to which of the agents should be called the special, the main, or the prominent cause, for the cause consists in the mutual action of the whole. When man is working he often calls in one agent to produce an intended effect. If he wishes to kindle a heap of straw, the agent he attends to is the fire he applies; if he wishes a good crop from his ground, he looks to the manure; if he wishes to be cured of a disease, he selects his medicine: tho in all such cases there is need of cooperation in the state of the straw, or of the ground, or of his bodily frame. In nature there is often one agent that is particularly potent. When a tree is struck by lightning it is the electricity that is specially noticed, tho the structure of the tree had also to do with the effect produced.

Fixing on the agent that is most prominent in itself or in our eyes as the cause or special force then co-operating, that agent may be called the *Occasion*. This phrase is specially applied to circumstances which cast up to call forth a power into exercise or to work with causes steadily operating. Thus that ill-constructed house fell on the occasion of a storm arising. I was prompted to write a letter to a friend by my affection; but the occasion was his suffering a severe loss; the two actually called forth the letter. Malebranche was the philosopher who brought the phrase "occasional cause" into general use. He represented the will of God as the true cause of all creative action, but the volition of man might be the occasion of the forthputting of the Divine Power. Thus when I move my arm the true cause is the Divine Will, but my purpose is the occasional cause. In

such a case we may allowably give a prominence to the Divine Power, but it should be noticed that while one of the agents is the important one, the other or others, the action of the brain and nerves, are necessary to the production of the precise consequence, which will not follow without the co-operation.

We are thus enabled to give a philosophical explanation of what is meant, or rather what should be meant, by Condition, a phrase so often used vaguely and illegitimately in the present day in its application to physical operation. In order to be rid of an agent or to drive it into a corner they say it is simply a condition. In order to the production of a given effect a certain agent is fixed on as producing an end, the other or others are represented as simply conditions. As proving design we show that animals with a stomach for digesting flesh have also claws and strong muscles to catch and hold their prey. But an attempt is made to do away with the force of the argument by urging that these adjuncts are merely the conditions of the ma-But properly understood the argument lies in chine working. the circumstance that the co-operating conditions have met. The presence of strings in a harp is a condition of it producing music, but the evidence of design is in the presence and combination of the necessary strings.

We may legitimately and conveniently use such phrases provided we understand them ourselves and let our readers or hearers understand what we mean by them. But it should be distinctly explained that all the agents acting, whether circumstances, occasions, or conditions, constitute the cause without which the effect would not follow.

It is needful to make like explanations and come to the same understanding as to the Effect. In all cases of physical action the effect is also dual or plural; it consists of two or more agents changed—I hope to show the same agents as are in the cause. These constitute what has been, and what will always be, produced by the cause. But it often happens that a special end is contemplated when we set an agent or agencies aworking; and when this is effected it is regarded as the proper or the only effect. But there may be other consequences which we did not consider or look for, or which we regard as minor or irrelevant ones. We wish for a shower to refresh the ground; as it falls it

accomplishes that end, but it may also so swell a stream that it works destruction as it overflows its banks. A new machine is invented which produces a greater amount of work, but it throws a number of people, who followed the old methods, out of employment. It is desirable to have a phrase to denote these secondary effects, as they are regarded; and they may be described as Concomitants, or more expressly as Incidents or Incidentals. Perhaps some would call them Accidents, and they may be so called as they were not intended, as when one fires an overcharged gun and is wounded by its striking backward. But these accidents are quite as much caused by the agents as the others that were expected. In all cases the effect properly understood consists of the whole of the agents that have been acting put in a new Any one who sets new agencies agoing, say starting a new trade or passing a new law, is bound to look not merely to one but all the consequences that must follow.

Thirdly, there is the grand doctrine established in our day of the Conservation of Energy. It has long been known and acknowledged that the sum of matter in the cosmos is always one and the same. We burn a piece of paper and it disappears from our view, but is not annihilated; one portion of the matter has gone down in ashes, the other has gone up in smoke, and if we could bring the scattered particles together they would constitute the original paper. It has been established in our day that the same is true of the energy in matter. This doctrine was anticipated by Leibnitz and established in our day by Meyer, by Joule, Grove, and others. According to this doctrine the sum of energy, actual and potential, in exercise or ready to be exercised, is always one and the same. It cannot be increased and it cannot be diminished by any human, indeed by any mundane, agency. When any portion of it leaves one body it enters into another. The sum of energy in the two balls have in them the same amount of energy before they strike and after they strike. When the energy disappears in one form, say in mechanical force moving a mass, it appears in another, say in heat, which is molecular motion. But the sum is always one and the same.

It is an integrant part of this doctrine that the physical forces are all correlated, a truth which has been beautifully ex-

pounded by Grove. The energy may take various forms, say the purely mechanical, the chemical, the electric, the magnetic. These forms are capable of being transmitted into each other, and this in definite quantity, so much mechanical force into so much chemical force, which chemical force may be reconverted into the mechanical. This shows the whole physical forces of our cosmos to be correlated and capable of being transmitted into one another; the sum always remaining the same.

It may be difficult to point out the full relation between these three doctrines which I hold to be severally established. there is no inconsistency between them. Perhaps the full doctrine may be so stated as to embrace all the three and make them aspects of one grand truth. Our cosmos may, as the Pythagoreans supposed, be like a closed globe with an immensely large but definite number of bodies in it. Each of these bodies possesses a certain measure of physical force or forces. These act and react upon each other, producing all the activity, all the movement, in our world. The bodies act on each other, forming a cause. doing so they modify each other, and the result is the effect. Meanwhile the sum of matter and the sum of the forces in the bodies continue one and the same, and both are incapable of This is at least an intelligible enough increase or diminution. doctrine, and embraces the three truths which have been separately stated, and seems in perfect consistency with all that has been established in regard both to the persistence of matter and the persistence of energy, as Herbert Spencer calls it.

Meanwhile the conservation of energy may be regarded as an established doctrine. Savans do indeed continue to assert that some of the most eminent among themselves do not understand it, or have not expressed it properly, or have illegitimately applied it. But it is universally admitted that the doctrine is a true and an all-important one.

But let us properly understand and explain it and keep it within its proper limits. It will be admitted by all at once that we are not entitled to affirm that the law extends beyond our cosmos or knowable universe. For anything we know there may be other worlds beyond our world, and we have no right to say that in these worlds there is only a definite amount of energy which cannot be increased or diminished. God may, or

may not, be creating suns or earths or living beings beyond our ken and altogether beyond our science. The doctrine of the conservation of energy, as I understand, holds only on the supposition that our cosmos is like a closed globe. It is conceivable that our world may not be so closed in; that the dissipated heat which is passing into space may travel into other worlds and influence them without our being able to notice it.

This restriction of the doctrine is so obvious that it is scarcely worth noticing it. But there are other limitations which it is of vast moment to bring into prominence, as they are being overlooked by some of our scientific men. There is clear evidence that there are other potences or powers in nature besides the mechanical or physical forces. It is not proven that the doctrine of the conservation of energy applies to these.

Take Life. So far as I understand him, Herbert Spencer seems inclined to hold that the doctrine applies to all the powers in the world, even to the vital and mental; indeed, he seems incapable of distinguishing between nerve force and mental force. But he brings no proof that physical force and psychical force can be transmuted into each other. The language of most of our scientific speculators is hesitating. Huxley and Tyndall resolutely maintain that there is no proof that living beings can proceed from non-living: Darwin calls in three or four live germs, which he ascribes to God, before he can account for the development of vegetable and animal life. I have observed that those who reject a separate life or vital force are obliged to bring it in un-Thus Darwin calls in a pangenesis pervading der another form. organic nature, and Spencer has physiological units which play an important part in generation and heredity, and these are cer-Then the arguments and experiments of tainly vital forces. Beale have to be met, and they have not yet been met by those who would deny the existence of a vital potency of some kind different from mechanical force.

But there are other agents in our world more clearly distinguished from the physical forces than the vital powers are. I refer to the psychical or mental; to those of which we are conscious, which in fact we know immediately; such as our sense perceptions, our memories, our judgments, our reasonings, our desires, our emotions, our resolves. These we know as directly

and clearly as we know the affections of body, such as extension and resistance, and we have quite as good evidence of the existence of the one as of the other. Are these mental powers to be included in the physical forces which can neither be increased nor diminished? Can the physical forces be transmuted into the mental, say mechanical, or the chemical into thoughts, inclinations, and volitions? Nearly every scientific man in the present day admits, nay, maintains, that there is no proof of this. Many affirm that they cannot even conceive it to be so. Tyndall, no doubt, in his Belfast address hastened on to a high vaporous generalization, and declared that it looked as if all things could be brought under the potency of matter: in the mean time declaring, however, that he could not conceive how matter could produce mind, or mind matter. Mr. Fiske talks of our now needing to assume only one universal assumption, "the principle of continuity, the uniformity of nature, the persistence of force, or the law of causation;" but then he is obliged to add that "in no scientific sense is thought the product of molecular movement, and that the progress of modern discovery (correlation), so far from bridging over the chasm between mind and matter, tends rather to exhibit the distinction between them as absolute." The contradiction is here evident, and has been pointed out by scientific men; but I need not dwell upon it, my object being simply to show that thoughts and mental affections have not yet been reduced to physical forces. No doubt mind and body do so far affect each other. If a person is told that his dearest friend has died suddenly, his pulse will be apt to rise. Barker attaches a great importance to an experiment of a person first reading easy English, when his pulse was not affected. then reading Greek, when it rose several degrees. Such cases, and they might be multiplied indefinitely, show that mental thoughts and feelings do affect the brain-action, but they do not show that they add to or diminish the physical forces in the brain, or that the mental feeling or thought has been transmuted into a movement of the pulse. A man standing by a stream pushes a big stone in the water aside and the stream flows a little more rapidly for a minute or two; but he has not thereby added to the quantity of water. Just as little does mental

action, reasoning or feeling, add to or diminish the amount of physical force in the cerebro-spinal mass.

There is no evidence, but the very opposite, that our mental actions are identical or correlative with bodily motions or activi-Take as example, the discoveries of science. ties of any kind. the reasonings of mathematicians, the visions of poets, the penetration of such philosophers as Aristotle, the ardor of the patriot. the beatific vision of the Christian, the sacrifices made by the poor for honor and honesty's sake. What savant will estimate for us in quantitative expressions of physics or chemistry the depth of affection in the mother's bosom when she incurs death herself to save her son, or the height of genius reached by Shakespeare when he conceived Hamlet or Lady Macbeth? no one proper quality of matter, such as the occupation of space, or resistance, or elasticity, that can be predicated of thoughts or There is no one quality of mind, such as perception, thought, reasoning, or love, that can be applied to this table or The instrument has not yet been invented that can weigh or measure our intellectual or voluntary operations. When a tree dies it carries into the ground not only the particles of matter which composed it, but the forces in the tree to add to the forces in the ground. It is the same with the body of brute or of man when it is buried, it carries with it into the grave all the physical forces; but were there any new physical forces added to the earth when Plato, Milton, Bacon, or Newton died?

It thus appears that in the very midst of the physical forces and their correlations there may be other operations, mental or spiritual, and against this science has and can have nothing to say. I mean to refer to these farther on in the article. Meanwhile let us look at the physical forces acting according to the principles laid down.

I. Without attempting to explain their exact nature, or to enumerate them, let us designate the physical agencies operating in our world by the letters of the alphabet and inquire how they act. A ball at rest is struck by a ball in motion. Let us call the ball at rest A, and the ball in motion B. The two constitute the cause, which is

The cause A B.

As they act the effect follows: A moves while B's motion is stayed, and as the effect we have bodies changed,

The effect A' B'.

But in its motion A strikes C, and B is struck by D, and we have *Two causes* A'C and B'D,

and the

Double effect A2C' and B2D'.

But these agents come to act on other agents, E, F, G, H, and we have a

Complex result, A3E, C2F, B3G, D2H.

On the supposition that these agencies are in a closed ball and act on each other and on nothing else, the sum of energy would be one and the same, while each body might be gaining or losing energy, one or both.

In the first action of A B, A gains energy from B and moves, while B loses what energy it gives and is stayed. But A going through the air and over a surface loses the energy it gained, imparting it to the air and surface, and comes to rest; and B is struck by D and gets the energy it has lost and moves. There is thus a continual action kept up among the bodies. The energy in each body varies, it may be from moment to moment, but the amount among all the bodies continues the same.

- 2. We see that the effects come to act as causes. Thus if we represent the cause as A B and the effect as A'B', we see that each of the agencies A and B is ready to act always when combined with some other agency, such as C and D. These last acting as causes become effects which may again become causes in combination with other or the same things. The conservation of energy thus keeps the world the same through ages, while these constant changes give it its activity: the one as it were constituting an unchanging ocean, the other the tides that agitate it. It is thus, as the Eleatics held, that everything is fixed and immutable, but equally true, as Heraclitus and the φιλοσοφοι ρεοντες taught, that everything is becoming.
- 3. We see that in physical nature (and I speak of no other) the effect consists of the agencies which have been the causes appearing in a new form. When the cause is A B, the effect is A'B'. When the cause is more complex, A, B, C, D, E, F, G, H, all of these agencies are changed or modified; and these as

changed constitute the effect that will forever follow the cause. This makes all physical causation a kind of evolution or development, a favorite doctrine with certain theosophists who derived all mundane things from other mundane things, and all things from God. This doctrine was apprehended and expressed in a mystical way, but contains an important truth which can be separated from the error with which it was associated and put in a scientific form. It is not that the effect emanates from the cause; but the effect consists in the agencies constituting the cause being put in a new state.

- 4. It is altogether wrong to represent with Hume the relation of cause and effect as being merely or essentially invariable antecedence and consequence. It is something deeper in the very nature of things. The effect which is always dual or plural consists of the things that constituted the cause in a new condition. There is and always must be invariable and unconditional antecedence and consequence, but prior to this and producing this there is the conservation or persistence of force which comes out from the agents acting as the causes, goes into the effect, and thus necessitates antecedence and consequence.
- 5. We see what is the inertia of body. Newton's First Law of Motion follows from the principles we have laid down. A body at rest will continue at rest forever unless it is acted on by some other body; a body in motion will continue in motion in the same straight line unless stayed or deflected by some other body. All this is a corollary from the principle that causal action is the action of two bodies, and that a body will not act unless acted on by some other body.
- 6. We see the nature of the law of action and reaction. A body will not act unless there is some other body acting on it. Under this view matter is passive. It acts only so far as it is acted on. In another sense it is active. One body acts on another body; thus two bodies are A and B, and A and B are both changed. A at rest moves and B is stayed. What B loses in being stayed, A gains and moves. This gives us Newton's Third Law of Motion, that Action is always equal to and the opposite of Reaction. B gives what it loses to A, but the sum of energy of the two is the same after action as before action. It follows that the energy given to A is equal to that lost by B.

- 7. It is sometimes stated that the same effect may be produced by different causes. This is not true or it is true according as we understand it. A jar may be broken by a picture falling on it, but it may also be broken by a stone flung at it. The breaking of the jar may thus be produced by two different processes. But in both cases the breaking of the jar is only part of the effect. The full effect in the one case was the jar broken and the picture stayed; in the other, the jar broken with the stone stayed.
- 8. It is often said that great effects follow from small causes. A cow kicks a kerosene-lamp, and first the shed is ignited and then the half of a great city is burned. The British Government denies Colonial America a comparatively small claim; and a revolution breaks forth which separates Great Britain and the United States forever. But it is not quite correct, it is not the full truth, to say that one cause did all this. In all such cases there is a co-operation and succession of various causes. The fire is carried on by there being all around inflammable materials to propagate it, and the separation of the countries was really produced by a widespread discontent. In like manner a mighty agency may often issue in a very insignificant effect, because there are no conspiring powers.

Finally, we see what a complexity there is in the activities in our world. There are two or commonly more agents in every act of causation, two or commonly more in all effectuation. What a variety of powers at work in the great natural occurrences, say in the seasons, say in the production of spring, with its increased heat, its buds and leaves and blossoms! What a complication in the production of the great epochs of history: in the spread of Christianity; in the revival of learning in the fifteenth century; in the great Reformation; in the English. American, and French revolutions! This complexity is vastly increased by the circumstances that the agents in combination possess properties which they did not exhibit in their separate state. Water exercises qualities which did not appear in the separate action of the oxygen and hydrogen. When combined in living plants and animals the elements exhibit powers, such as absorption and assimilation, not shown by the oxygen, hydrogen, carbon, and ammonia. I feel that there is need in this complication of a regulating power to produce order and beneficence. Without this all these powers might work capriciously and injuriously and have formed only powers of evil, mosquitoes, serpents, flaming meteors and burning worlds, destructive machines, and pestiferous creatures devouring each other and arresting all forms of beauty and beneficence, and yet incapable of dying. We find instead those millions of agencies combining to accomplish good and benign ends. All this seems to me to show that there has been a mind disposing and a wisdom guiding them.

To prove this it is not necessary that we should settle what are the original constituents of the universe: some suppose them to be atoms, some represent them as centres of force, some will allow them to be only centres of motion. Some of our most distinguished physicists, such as Helmholtz and William Thomson, are favoring the idea of Descartes, somewhat modified, that they are vortices in perpetual whirl. Whatever they be, they need a wise and good disposal to make them perform bountiful ends. I discover traces in nature of various kinds of design.

I. There are concurrences of agents to accomplish special beneficent ends. Take the eve. What a combination of independent agencies before we can see the smile on that friend's face! There are vibrations coming from the sun ninety millions of miles away; these have passed at various rates through an ether, they touch and are reflected from the countenance; some of them reach the corner of an optical instrument called the eye; they go through an aqueous humor, thence through the gateway of iris into the crystalline lens; they are there refracted and pass through the aqueous humors to the retina, where they impact on thousands of rods and cones, and are sent on to the optic-nerve and the brain; and we now see the smiles on our mother's face. Let any one of these be absent or fail, and nature would remain forever in darkness. Take the ear. A sister utters a word, a vibration is started, it reaches our ear, is collected by the outer ear and knocks on the tympanum, is propagated into the middle-ear, where it sets in motion the hammer and the anvil and the stirrup, thence it penetrates into the inner ear, where it vibrates through a liquid, affects the thousand and more organs of Corti, is sent round the semicircular canals into the cochlea, on through the auditory nerve into the brain; the silence is broken, and we are cheered by a voice of love.

II. We may discover a plan and purpose in development as it is carried on in our world. Development is evidently not a simple power in nature like mechanical force or chemical affinity or gravitation. It is clear that there is a vast, an incalculable number and variety of agencies in the process, whether it be the development of the plant from its seed, of the bird from the egg, of the horse from its dam, of the threshing-machine from the flail, of the reaping-machine from the reaping-hook, of our present kitchen utensils from those used by our grandmother.

Development is essentially a combination of causes fulfilling a purpose. It is an organized causation for ends, a corporation of causes for mutual action. It has been admitted for ages that causation works through all nature; not only divine causation, the source of the whole, but physical causation; that is, the ordinary occurrences of nature are all produced by agents working causally; in other words, fire burns, light shines, and the earth spins round its axis and rotates round the sun, and the consequence is that we have heat and light and the beneficent seasons. Men of enlarged minds do now see and acknowledge that in the doctrine of causation, in the doctrine of God acting everywhere through second causes, there is nothing irreligious. On the contrary, the circumstances that God proceeds according to laws is evidently for the benefit of man, who can thus from the past anticipate the future and prepare himself for it. On the same principle I hold that there is nothing irreligious in development, which is just a form of causation. It was my privilege in my earliest published work to justify God's method of procedure by natural law. I reckon it a like privilege in my declining life to defend God's method of action by development, by bringing the present out of the past.

There is an arranged combination necessary to produce evolution. The present is evolved out of the past and will develop into the future all under an arrangement. The present is the fruit of the past and contains the seed of the future. The configuration of the earth, its hills and dales, its rivers and seas, which determine the abodes and industries of men and the

bounds of their habitation, have been produced by agencies. which have been working for thousands or millions of years. The plants now on the earth are the descendants of those created by God, and the ancestors of those that are to appear in the coming ages. There is through all times, as in the year, a succession of seasons; sowing and reaping, sowing in order to reap, and reaping what has been sown in order to its being sown again. This gives a continuousness, a consistency, to nature amidst all the mutations of time. There is not only a contemporaneous order in nature, there is a successive order. The beginning leads to the end, and the end is the issue of the beginning. This grass and grain and these forests that cover the ground have seed in them which will continue in undefined ages to adorn and enrich the ground. These birds that sing among the branches and these cattle upon a thousand hills will build nests and rear young to furnish nourishment and delight to our children's children in millennial ages. Every naturalist has seen a purpose gained by the nutriment laid up in the seed or pod to feed the young plant. I see a higher end accomplished by the mother provided for the young animal. That infant is not cast forth into the cold world unprotected: it has a mother's arms to protect it and a mother's love to fondle it. Development is not an irreligious process; every one who has been reared under a father's care and a mother's love will bless God for it.

"Evolution," says Herbert Spencer, "is a change from an indefinite, incoherent homogeneity to a definite, coherent homogeneity through continuous differentiation and integration." He has sufficient philosophy to refer all this to a power supposed by him to be unknown working behind the known phenomena. A deeper philosophy will discover a so far known divine power producing these effects.

In development there is usually progression. At times there is degeneracy, chiefly the result of human sin, as we see in the degeneracy of the Indians. But as a whole there has been an advance in our earth from age to age. The tendency of animal life is, upon the whole, upward—from all-fours to the upright position, in which men can look up to the heavens. Agencies have been set agoing to produce these evidently intended ends. Causes that operated ages ago have called in other causes to co-

operate with them, and have thereby added to the power and riches of the product. The geological changes have made our earth fit for the abode of man. Human beings have taken the places which in earlier ages were handed over to wild animals. There is a greater amount of food produced on our earth than at any earlier stage. There has been, as the ages rolled on, a greater fulness of sentient life and a larger capacity of happiness. The intellectual powers have been made stronger and firmer like the trunk of the tree, and the feelings like the flowers have taken a larger expansion and a richer color by culture.

I am inclined to see purposes in the very forms of animals and plants, and the manner in which they grow into their type; while the type ever advances as if to realize an idea. Our roses are all supposed to be derived from the common dog-rose, and I see a beauty in that rose as it grows by the roadside. But I discover a higher manifestation of skill in the way in which the rose becomes more fully expanded in our gardens. God, who rewards us for opening our eyes upon his works, bestows higher gifts on those who in love to them bestow labor upon them. Dogs, it is said, have all descended from some kind of wolf, and I see a fitness in their primitive forms; but I discover a fuller development in the shepherd's dog and the St. Bernard dog with their wondrous instincts. I discover a fitness of parts in the old eohippus which used to tread with its five toes on marshy ground; but I discover an advance in the pleiohippus, and still higher perfection in the animal we ride on, so useful and so graceful, so agile and so docile.

III. I discover an end in the manner in which plants and animals are produced. Two systems of development are necessary to effect this. First, the tendency of every living thing to produce a seed or germ. The powers necessary to accomplish this are very numerous and very complex, but all conspiring towards this one end, as if it were one of the purposes for which the plant was created. Secondly, there is the development of the plant and animal from the seed or germ. This, too, implies an immense combination of arranged elements and forces. It looks excessively like an end contemplated, an idea to be realized. It looks all the more like this when we notice that the seed or germ is after its kind and produces a living being after

the same kind. There is thus a double development in all animated nature; we see it in the oak producing the acorn, and the acorn the oak.*

These are mainly operations of the ordinary physical forces which are all correlated with each other, needing only a disposing power. But there are in our cosmos other and higher powers. In closing let us look at these.

First. There is evidence of new and these higher powers appearing in the progress of nature. I have shown at an earlier part of this article that in physical causation there is merely a changed state of the agents acting as the causes. There is no power in the effect which was not in the causes. If heredity has a gift committed to it, it may transmit it from parent to offspring and from one generation to another. But if there be a new power appearing, it must be from superadded causes. But there are products in our world which cannot be developed from the original elements or powers of nature.

Was there Life in the original atom, or molecule formed of the atoms? If not, how did it come in when the first plant appeared? Was there sensation in the original molecule? If not, what brought it in when the first animal had a feeling of pleasure or of pain? Was there mind in the first molecule, say a power of perceiving an object out of itself? Was there consciousness in the first molecule or monad—a consciousness of self? Was there a power of comparing or judging, of discerning things, of noting their agreements or differences? Had they a power of reasoning, of inferring the unseen from the seen, of the future from the past? Were there emotions in these first existences? say a hope of continued life or a fear of approaching death? Perhaps they had loving attachments to each other, perhaps they had some morality, say a sense of justice in keeping their own whirl and allowing to others their rights and their place in this dance! Had they will at the beginning, and a power of

I "When will apologists begin to perceive that the best apology for the universe would lie in the belief that it was not designed at all?" This is the melancholy conclusion reached by Mr. Grant Allen in a review of Prof. Cleeland's recent work. Some are regretting that Mr. Allen should have become so slavish a follower of Spencer, and be using his power as a critic in the London Academy to depreciate those who have the courage to avow that they see design in nature.

choosing between pleasure and pain, between the evil and the good? Perhaps they had some piety, and paid worship of the silent sort to God!

It is needless to say that there is not even the semblance of a proof of there being any such capacities in the original atoms or force-centres. If so, how did they come in? Take one human capacity: how did consciousness come in? Herbert Spencer, the mightiest of them, would have us believe that he has answered the question, and yet he has simply avoided it. In his "Psychology" he is speaking of nerves for hundreds of pages; he shows that in their development there is a succession of a certain kind; and adds simply that "there must arise a consciousness"! This is all he condescends to say, bringing in no cause or link or connection. Thus does he slip over the gap—a practice not uncommon with this giant as he marches on with his seven-leagued boots.

It is pertinent to ask, How did these things come in? How did things without sensation come to have sensation? things without instinct to have instinct? creatures without memory to have memory? beings without intelligence to have intelligence? mere sentient existence to know the distinction between good and evil? I am sure that when these things appear, there is something not previously in the atom or molecule. All sober thinkers of the day admit that there is no evidence whatever in experience or in reason to show that matter can produce mind: that mechanical action can gender mental action; that chemical action can manufacture consciousness: that electric action can reason, or organic structure rise to the idea of the good and the holy. I argue according to reason and experience that we must call in a power above the original physical forces to produce such phenomena. I may admit that a body may come out of another body by the powers with which the bodies are endowed; but I say that a sensitive, intelligent, moral discerning soul cannot proceed from the elements of matter. New powers have undoubtedly come in when consciousness and understanding and will begin to act. They may come according to laws not yet discovered, but they are the laws of the Supreme Lawgiver.

I can find no more satisfactory account of this process than that in the opening of Genesis, where new manifestations appear in successive days or epochs, the whole culminating in man in the image of God. "Howbeit that was not first which is spiritual $[\pi\nu\epsilon\nu\mu\alpha\tau\imath n\acute{o}\nu]$, but that which is natural $[\psi\nu\chi\imath n\acute{o}\nu]$; and afterward that which is spiritual." "And so it is written, the first man was made a living soul; the second Adam was made a quickening spirit" (I Cor. xv. 44-46)—where we may mark the advancement from the merely living soul $(\psi\nu\chi\dot{\eta}\nu\ Z\tilde{\omega}\sigma\alpha\nu)$ to the quickening spirit $(\pi\nu\epsilon\mu\alpha\ E\omega\sigma\sigma\iota o\iota o\tilde{\nu}\nu)$.

Secondly. There are mental and spiritual powers working in our world. Of the operations of the mental powers we are conscious. I am quite as certain that I have thoughts and wishes as that I have hands and feet. But not only are there psychical acts, there may be spiritual powers. I am aware that some of our savans will turn away from such an idea not only with unbelief, but with scorn, declaring it to be inconsistent with the uniformity of nature, with all history, and with all science. But this arises not from the comprehension of their views, but from fixing their eyes so exclusively on their own favorite subjects that they do not see others lying alongside of them possibly higher and more important.

Earnest men in all ages have been seeking after intercourse with God. They have prayed in the belief that there may be One to hear them, and they have expected an answer. They do not allow to you that God has so shut himself out from his own world that he cannot act on it. They deny that there is any proof that our petitions are so bound to the earth by gravity that they cannot mount upward and reach the ear of their heavenly Father, who is felt as pitying them. They believe that their spirits can hold communion with God, who is a Spirit, quite as certainly as our earth can act on the sun and the sun on the earth. They have faith that there are wider and more intimate unions than those produced by the attraction which all matter has for other matter. They are sure that all holy intelligences throughout the universe are in union with the Holy God.

Christians believe that they live under the dispensation of the Spirit. We have seen that there have been in the history of our world times or seasons in which new powers, apparently always advanced powers, appeared. There was a time in which life appeared, in which consciousness appeared, in which intelli-

gence appeared and will appeared, and a conscience discerning between good and evil appeared, and the full man in the image of God appeared. There has been a like introduction of new powers, and a like advance in the revelation which God has been pleased to make of his will, first in the shadow going before, then in the grand Personage appearing in the fulness of time. The Jewish dispensation comes out of the patriarchal, and the Christian out of the Jewish, in each case something new being added. Under the old economy there were promises of the coming dispensation, and there were anticipations of it in persons moved by the Holy Ghost. It was thus in the geological ages; as Agassiz delighted to show, in lower creatures stretching up towards higher and towards man himself. But the full dispensation of the Spirit was introduced when the Mediator, having finished his work on earth, went up to heaven: "If I go away, I will send him unto you."

Christians believe that in this dispensation they have access to God. They maintain that science has nothing to say even in appearance contradictory. Some of the profoundest investigators of science have believed all this and avowed their convictions, such as Newton and Leibnitz, Brewster and Herschel, Faraday, Meyer, and our own Henry. They have been quite as sure of this as of their own great discoveries as to the laws of the universe.

No doubt these spiritual operations are not without law of some kind. But that law is not the same with the physical laws operating around us. It may be such that we cannot by searching find it out. The arc visible to us is too small to enable us to calculate the full circle or sphere. So we piously ascribe it all to the sovereignty of God. "The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh, and whither it goeth: so is every one that is born of the Spirit."

JAMES McCosh.

THE SCULPTOR AND HIS ART.

TT was a habit of Socrates,—who was himself a sculptor, and the son of a sculptor,—when he would inquire into the philosophy of any subject, to seek the professional practitioner or teacher who claimed to be a representative, reasonably inferring that such an one would be well qualified to furnish the information he sought. He then applied his unrelenting system of inquiry with a keen-scented persistency that was quick to expose ignorance or fallacy. This method of inquiry as practised by Socrates, which confronted him at once with the true representives, we cannot do better than imitate. To the atelier, or workshop, therefore, we will go, where, surrounded by the implements of his art, we shall find the sculptor engaged in the practice of his calling. The artist may not be always able to give a reason for his practice—as Socrates sometimes found to be the case but the atelier affords ample illustration even of principles too subtle for logical solution. The studio of the artist is the amalgamation of the study and the workshop. The technical and the intellectual, practice and theory—even the mechanical and the emotional—are there blended harmoniously as one in the service of art.

The fundamental element in sculpture is form. The forms of objects are principally recognizable to the eye by means of outline and shadow; the first gives the impression of shape, the second that of relief. Outline and shadow, therefore, constitute the elements of form as regards our visual impressions. Colorless objects that are equally illuminated from all sides, tho their surface be roughened or irregular, give no impression of relief save what is suggested by their outlines. The landscape viewed from a height under a meridian sun has few distinctions of form;

but as the day declines the lengthening shadows reveal a varied and broken panorama: hills, valleys, and even the gentler undulations of surface greet the eye.

Sculpture is the least complex of the formative arts; but from this we are not to infer that its merits are of an inferior order. Excellence in all the arts is of equal merit, and if there be any distinctions of this kind, we may conclude that excellence is of a higher order in proportion to the simplicity of the means employed. It is the equable character of true excellence in art that places on the same plane Homer, Phidias, and Raphael or Michael Angelo, as merely varied exponents of the same creative power.

Again, with reference to form as the basis of sculpture, there are two distinctions that should be borne in mind, viz., the science of form and the sense of form; the first relates to fact, the second to feeling. The first is a matter of systematic knowledge; the second, of æsthetic perception. No artist is properly qualified in art who neglects these distinctions, or who fails to recognize their respective merits as contributing to manifestations of the beautiful. No amount of scientific knowledge of form will avail the sculptor in the absence of that artistic or emotional sense of it of which sculpture is an expression or representative. Nor will a fine artistic sense of form avail, in art, in the absence of a knowledge of anatomy. I once saw a statue, representing an athlete, that had attracted some attention from the fact that it was made by an anatomist—one whose knowledge of anatomy was justly held to be very considerable. Great accuracy of knowledge was displayed in the anatomical forms, while the action chosen was well adapted for muscular display. But for a work of art this conspicuous motive was a false one, the emotional character of the action or expression being subsidiary to the exhibition of knowledge. It excited curiosity, but stimulated no higher emotion, and the effect was, on the whole, repulsive.

On the other hand, examples are not rare, in sculpture, wherein is plainly recognizable the absence of accurate anatomical knowledge, the result being inane and valueless. Underlying the higher truth there must be a basis of natural fact, and the studies of the sculptor are directed to this end. But after veri-

fying his anatomical forms by constant reference to nature, the sculptor makes all this subservient to an emotional impulse of a higher kind. The imagination, regarding his work from an elevated plane, enables him not merely to endow his creations with life, movement, expression, but also to make them act in a noble and grand way. He aims not merely to represent the forms of life, but to express through form a still finer sense of beauty, not found in the model, but seen through the model, which is nature in a more select and permanent aspect.

But without further discussion of general ideas, we will go at once to the workshop. We will follow the sculptor in all his processes, from his rude first sketch to the completion of his statue.

The first step in every formative art is generally that of a rude sketch on paper; but it is not uncommon for sculptors to make even the first sketch in the clay-generally a very diminutive, hastily executed sketch, designed merely to express the general idea." The rude, first blot, in whatever form it may be, is a point of departure; it is the initial fact for the imagination to rest and work upon. Then follows what is termed a study a larger sketch, in which the action and forms are determined with some care, in accordance with the conception as it exists in the mind. Generally in this second sketch reference is made to the living model, but not always. Before referring to the model, the artist desires to assert his motive—the conception he has himself formed in imagination. A too early reference to the model may substitute for this an action or motive conceived on a lower plane—the plane of the commonplace. In this model. either of clay or wax, the sculptor aims to express the action, the forms and general proportions, freely making changes as the sketch advances. It is not uncommon to make several experimental designs in different attitudes, exhibiting various actions. before he decides what will best conform to the leading idea. It may be that he studies this small model with great care, with continued reference to nature, and thus matures his conception.

If the proposed statue is to be of life size or larger, he proceeds to set it up in clay by proportional measurements made from the small model. The clay most commonly used is of a gray color, free from gritty substance, and moistened to a

proper consistency. The figure is built up about the supports -termed the skeleton-following the attitude and proportions of the original sketch. The clay is manipulated with the fingers, and the work, at this stage, is advanced by simple addition. This "setting up" of a statue, as it is termed, is generally performed by the sculptor's assistants, who are guided by proportional measurements. When the material is all placed and the figure roughly shaped, the sculptor then takes it in hand and brings to his aid all the resources of his art. Every part is carefully studied from the life. The statue is first modelled nude, and afterward the forms are clothed. The drapery is superadded to the forms already modelled, by first running over them strips of clay to represent the folds or masses that are farthest removed; but where drapery sinks to actual contact with the body or limbs, the original surface is carefully preserved, tho characterized as draped by distinctions of texture and other like Textures and other variations of surface are given by various tools, usually made of wood. The clay is kept moist, and when the day's work is finished it is wrapped in wet cloths, or covered with an air-tight screen to retard evaporation.

It is important for the sculptor to design his statue so as to avoid, as far as possible, the extension of any part of the figure insecurely. He must also bear in mind where the statue is to be placed, and in what material it is to be finally wrought whether it is to be of marble or of bronze. If it is to be of bronze, he may have certain liberties of which the marble does not admit, the brittleness of the marble necessitating a more compact mass. Where the design necessitates extended limbs, the ancients often resorted to artificial supports; but this has been avoided in modern times, as they interfere with the beauty of the statue or group. In bronze-work there are many difficulties encountered in casting complex forms, but skilled founders find ways of surmounting them. Benvenuto Cellini, in his autobiography, gives a very interesting account of the casting of his "Perseus," explaining these difficulties and the care necessary to overcome them. One of the most remarkable pieces of bronze-casting is that of the beautiful gates of the Baptistery at Florence by Lorenzo Ghiberti, of which Vasari gives an account.

But this is anticipating. Let us dwell more particularly on the clay model; for it is here that the sculptor displays his true powers, his finest skill. The genius of the artist finds expression in the pliant clay. With that delicacy of touch by which the skilled musician modulates sound the sculptor gives expression to the yielding clay. Having the living model before him, he seizes upon that which is expressive and characteristic. Avoiding trivial accidents and incongruities, he seeks that unconscious grace, or it may be that virile action, that is truly natural and pleasing. His great concern is to conform the outward action to the inward impulse, that his work may appear artless rather than artful; every action being free and unconstrained, spontaneous in movement rather than conscious or studied. Few things have greater fascination for the observer than that of witnessing the clay start into life under the skilled manipulations of the Slight modifications of form will sometimes make it quickly assume the character of life. The process itself, passing from generals to particulars with true logical sequence, is a most suggestive one, well calculated to stimulate thought in many analogous ways. In composing his statue, the sculptor must regard it from all points of view. Unless designed to fill a niche, it must be so studied that it composes agreeably from eight distinct points of view—the front, the rear, the sides, and obliquely. Indeed, his work is in itself a real object, while the painter's representation is but the semblance of reality—the imitation of the appearance. In contrasting his own art with that of painting, a sculptor once said to me, "There is a satisfaction in being able to walk round your work, to regard it from all points of view as a real, palpable object." And that indicated the character of the sculptor's peculiar sympathy for form, heightened by the sense of reality and substance.

The statue, therefore, must present from every point of view an agreeable form or outline. In process of modelling the clay rests on a revolving base, that the figure may be turned readily when the sculptor desires to view his work from different sides; and after every considerable addition it must be so regarded. A distinct manipulation of the clay is required to represent all the distinctions of surface as to the character of flesh or of drapery. Qualities of hardness or softness, roughness or smoothness, are

represented with delicacy or boldness as the case may require. It is upon the clay that the sculptor bestows all his energies, even to the extremest finish the character of the work demands. What follows is mainly of a mechanical nature.

When the statue is completed in the clay, the formatore then makes from it what is termed a "waste-mould" of plaster of Paris. A waste-mould is distinguished from a piece-mould in that it serves but for one cast, in the forming of which the mould is destroyed by being clipped off with the chisel. In the forming of a waste-mould the clay model is entirely wrecked. The mould is then washed and coated with boiled oil, and when dry it is fitted together and a perfect plaster cast is made. This the sculptor receives from his workmen and proceeds to bestow upon it additional labor. In the place of wooden tools, he now uses those of steel—rasps, chisels, and toothed implements of various kinds. In the plaster the statue is brought to a point of actual finish regarding every detail. The change from the gray clay to the white plaster is a marked one, and often suggests changes to be made, by reason of fresh observation consequent upon the nature of this new material.

After its completion in plaster, the statue is either reproduced in marble or conveyed in sections to the foundry. If the statue is to be of marble, the workmen cover the surface of the cast with innumerable minute cross-marks, and project from the raised parts a few points of steel, which serve as guides for the measurements for its reproduction in stone. With the calipers they determine all the elevations and depressions, and follow mechanically every variation of surface in the model. Vasari, in his life of Michael Angelo, thus describes this process: "A figure of wax or other firm material being laid in a vessel of water, which of its nature is level at the surface, on being gradually raised first displays the more salient parts, the less elevated still being hidden, until, as the form rises, the whole by degrees comes into view. In this manner are figures to be extracted from the marble with the chisel; the highest parts being first brought forth, till by degrees the lowest parts appear."

Of these various materials in which the statue is wrought, Michael Angelo said: "The clay represents life; the plaster, death; and the marble, a resurrection." The clay is yielding and expressive; the plaster, rigid and unqualified; and the marble revives again the finer qualities and lends to them a translucency of its own. When the statue is hewn from the marble—a labor of many months—it returns again to the sculptor, who gives to it an expressive finish in conformity with the spirit of his original conception. He obliterates the mechanical execution of his workmen and bestows upon it a facile grace, or delicacy of expression, that deceives one with the belief that the statue has come forth from the marble with the ease and celerity of the thought itself in its original conception.

But if the statue is to be of bronze, the last labors of the sculptor are bestowed upon the plaster model. When this is completed, it is cut into sections and conveyed to the foundry. It is there cast in sections, generally, and these are afterwards joined, finished, and chased by skilled artisans. The bronze is then toned, or darkened with acids—and so the work is done. As the original models are retained by the sculptor, his studio becomes populated with his works, that may be reduplicated to any extent; in which respect he has an advantage over the painter. There is an endurance, also, about this art that is impressive: the marble and the bronze live forever, while the masterpieces of pictorial art perish with time, and become, as with the Greeks, merely a vague tradition. The powers of the orator and the actor die with them; those of the painter may survive a thousand years, or by extraordinary chance, as in the Pompeiian frescos, to twice this period; but sculpture endures throughout the ages. The museums of Europe contain Egyptian statues and reliefs that belong to the fourth dynasty—as early as the forty-second century B.C. The endurance, therefore, no less than the palpable reality of sculpture give to it a value peculiarly its own.

The location of statues governs, in a measure, the character of their execution. Those which may only be seen from a distance should be more rudely executed to give the desired effect; and yet the Greeks paid little heed to this. The Phidian statues from the pediments of the Parthenon are, many of them, finished with great care. The "Theseus," the "Ilissus," and the beautiful group of the Fates are finished with extreme care. The Greeks

apparently followed the beautiful for its own sake. They neglected nothing. Phidias, when asked why he bestowed such care upon those parts of his works which, necessarily, were shut out from view, is said to have replied, "The gods see them, and they must be satisfied." A moral lesson truly, whether applied to art or to life itself.

Greek statues of single figures not designed to serve as architectural ornaments—such as the Apollo or the Venus—are equally beautiful from every point of view from which they are regarded; while a bas-relief, like a picture, is to be viewed in front alone. As compared with painting, the range of subjects admissible in sculpture is limited. Single figures serve best to express the finer qualities of this art. Groups, as a general thing, belong to a subordinate plane. Even the most famous groups of antiquity bear a subordinate relation to single figures. Perhaps the finest instance of two figures thus grouped is that of the Fates—Ceres and Proserpine—belonging to the eastern pediment of the Parthenon. Groups comprehending more than two figures—as the "Laocoön," or the "Farnese Bull," particularly the latter—decidedly belong to a period of decadence in sculpture. The figures there stand in a picturesque rather than plastic relation to one another, and are necessarily viewed separately; thus are introduced conflicting elements that mar simplicity.

Every work of art interests us not merely from its intrinsic merit, but as a manifestation of the character of the creative impulse that is behind it. Statues belonging to the best periods of Greek art are simply and nobly conceived. There is no resort to novel or specious effects, or to mere elaboration for its own sake. The art is grand because it is the embodiment of a grand conception, and executed with a noble disdain for trivialities. It is beautiful for the reason that it is simple, natural, economical; nothing remains to be added or taken away; the whole is composed of strictly essential parts. The perfect correspondence of the form and action with the motive satisfies the mind. Every part, every division of the body, the limbs, the muscles, perform their functions naturally and economically; nothing is strained, no action is forced; the movement corresponds with that action of the mind that is composed even

in energetic and quick exertion, as in the throwing of a discus.

Proportion is an element of form that is of supreme importance in sculpture. There is an innate sense of proportion in most minds, but under cultivation this is capable of being greatly refined. Even an uneducated ear may easily detect disproportion in verse and discord in music. But it requires accurate technical knowledge to be able to detect how and why certain works of art fail in due proportions. But if there were no general sense of these things possessed in common, music would alone address the sensibility of the musician, and rhythm that of the poet; but in a general way we all share in a like susceptibility, but varied in degree, to these influences. A sense of human proportion is awakened by countless impressions that are stamped upon the mind by the sense, and natural selection evolves from these impressions an average, or ideal, underlying endless variations of the real.

In order that we may comprehend the school in which the ancients studied their athletes we should follow them to the arena, where they witnessed performances that called forth unstudied action under circumstances impossible now to imitate. The ancient Romans, especially the lower orders, including the slaves, were fond of sketching upon the walls of the ante-rooms such scenes as interested them most in these spectacles, and the greater part of them represent gladiatorial combats. Cardinal Wiseman has given an interesting description of some of these scratchings (graffiti, as they are called). "They present to us a class of very rude but very interesting monuments. One of them records a peculiar occurrence. It is indeed only a battle in the amphitheatre, but it is between two men in very different positions; the names of the combatants are given, as they always are, and numbers over their heads tell how many victories each one had achieved. This battle, then, is between Spiculus, a tyro that is, one who had never before fought—and Aptonetus, librarius, or holding a high office among the gladiators, a man who had gained sixteen victories, as his number indicates. The first has over him the letter V-vicit, he conquered; the other, Pperiit, he perished. In fact, the old gladiator, with the sixteen laurels that he had won, is lying on the ground wounded to

death, or dead; and the youth who had dared to fight him is alive, holding the point of his sword against the prostrate figure."

Such is the rude sketch as it remains upon the wall after twenty centuries have passed. But we must imagine the emotions with which these two men approached each other in deadly combat, with the eyes of fifty thousand spectators intent upon them—the one a veteran, crowned with sixteen victories. indignant that a stripling like that should presume to cope with him; the other ambitious of the great glory that awaited his victory. The sketch records the sequel. We may conceive with what intentness the eye of the spectator—the Greek sculptor would observe every display of action, the tension of muscles, the swollen veins like knotted cords, the dilated nostrils as each stifles the anguish of a wound. "What the Greek sculptor knew how to seize, and alone had the opportunity of seizing, was the result of such deep, such extraordinary emotions as, acting outwards from the nobler organs, impressed themselves in that wonderful way we see represented in their art." They were not permitted to dissect the human body. Galen was obliged to study the ape for his approximate knowledge of human anatomy. The Greek or Roman arrived at the knowledge of the interior construction of the figure from what he saw without. But his school was an extraordinary one; for, as we have seen, he witnessed physical action under circumstances so intensified in interest, as in mortal combats, that the faculties of the artist were rendered acute and penetrating.

The athletic sports of the ancients also afforded fine opportunity for studying the physical form. Their five gymnastic exercises were boxing, running, wrestling, leaping, and throwing the discus. The physical form was developed by careful training. Persons of all ranks participated in these sports. Pericles had won prizes, and so had Socrates, and these triumphs were always regarded with pride. In these games the body was generally nude; the surface of the skin was rubbed with oil, to toughen the fibre. We see in one of the finest statues of the ancients—the "Apoxyomenos"—an athlete scraping himself with the strygil, after his return from the arena.

Thus we may form some idea of the nature of the experience

whence the Greek artist drew his inspiration and his sense of fine action and true proportion. That the ancients had certain fixed standards of proportion there is no doubt. By some it is claimed that the Greeks derived their standard of proportion from the Egyptians, and a statue known as the "Water-carrier," or the Egyptian Antinous, is adduced in evidence of this derivation; but the historic origin of their system we will not now discuss.

In Egyptian sculpture the proportions of their statues were rather more than seven heads high; they were equally poised upon both legs, often one foot is advanced, and the arms hang straight down on either side; or if one is raised, it is bent at the elbow at a right angle across the body. Their attitudes are simple and rectilinear, without lateral movement. In contrast with this, the Greeks, even in the earliest times, were freed from this rigid and constrained type. Between the Greek and the Assyrian there is thought to be a resemblance of forms and types that might indicate direct descent, if indeed the Greeks owed anything to foreign influence. Whatever may have been borrowed in the earliest times, the Doric migration created a new spirit which pervaded the Greek people and asserted their independence in forms of government, art, and life. remarks that the Egyptian artists wrought after an exact measure, but that the Greeks were guided by the accuracy of the eye. Winckelmann refutes this, and indeed it is now well known that the Greeks employed in sculpture, as in their architecture, certain fixed ratios of proportion, which, however, differed at different times and with the change of subject. Egyptian Antinous, now in the museum of the Capitol at Rome, is thought to embody proportions that are found applied in the finest examples of Greek art. The measurements derived from this statue are found to correspond to those of the "Theseus" and the "Ilissus," by Phidias, examples of the best period of Greek art. These portions have a wider application, covering a larger number of the best statues, than any other known standard. Vitruvius, tho writing on architecture, gives details and statements respecting the proportions commonly employed by Greek sculptors. He says, "The members of the body have certain proportions that were always observed by the painters and sculptors" of his time, which was that of Augustus; and he adds, "We must always look for them in those productions which have excited universal admiration." He then designates these proportions as follows: "The measure of the head from the chin to the top of the scalp is an eighth of the whole body; the face from the top of the forehead should be one-tenth part of the whole stature." The face he divides, longitudinally, into three equal parts; the foot is, in length, equal to a sixth part of the stature. All measurements are longitudinal. "The height of the human frame is equal to its breadth when the arms are stretched out," etc. etc.

It is observable in the works even of inferior sculptors of Greece that the proportions of their statues are generally fine, altho in purely artistic qualities they may be poor. This, I think, evinces a knowledge of some system of measurement that was common to all their artists.

It is well known that in their baths, which were places of general resort for intellectual as well as physical discipline and recreation, they preserved accurate records of the measurements of their most distinguished athletes. If one was distinguished for strength, agility, or grace of form, he was measured accordingly, and these records doubtless supplied the data for determining a true system of proportional measurements. In modern times Massaccio, Leonardo da Vinci, Michael Angelo, Raphael, Albrecht Dürer, and other distinguished representatives of the arts, have left records of their search for accurate systems of measurement—they all sought to discover the system of the ancients. It is partly due to the accuracy of the principles taught, and to systematized knowledge of this kind, that is to be attributed, in some degree, that prevalent excellence in art manifested in Greece in the time of Pericles, and in Italy in the fifteenth and sixteenth centuries. Dürer, in the preface to his treatise on mensuration, complains that young painters were too often allowed to grow up in ignorance of the principles of proportion as applied to the human figure. He divided the height of the human figure into seven parts, each having the same length as the head. Again he divided it into eight parts. A woman, he concluded, should be an eighteenth part shorter than a man; and in his proportional measurements of the female

form he follows, perhaps unwittingly, the celebrated standard of the Venus de Medici. He also gives ludicrous examples resulting from mathematical variations of proportion, or the exaggeration of one proportion at the expense of another.

Leonardo termed himself "the admirer of the ancients and their grateful disciple; but one thing," he adds, "is lacking in me, viz., their science of proportion." In his own treatise on this subject he thus writes: "In general, the dimensions of the human body are to be considered in the length and not in the breadth, because in nature we cannot in any species find any one part in one person precisely similar to the same part in another." He "divided the form of bodies into two parts; that is, the proportion of the members to each other, which must correspond with the whole; and the action, expressive of what passes in the mind of the living figure." A man, he adds, has the length of two heads from the extremity of one shoulder to another; the same from the shoulder to the elbow; and also from the elbow to the fingers. He agrees with Vitruvius that a well-proportioned man is ten times the length of his face.

Michael Angelo, as the result of a long life devoted to the study of the human figure, sixteen years of which were given to the study of anatomy, declared that there was a harmony of the proportions throughout, and that "these proportions have a law."

The importance of proportional measurements to the sculptor is apparent in his daily practice. Every statue is "set up" by means of such measurements; and if it be of colossal size, the symmetry of the whole cannot otherwise be attained. An ideal exaggeration like that of the Farnese Hercules could not well be produced without it; for in that statue the exaggeration of the general proportions is not only admirably sustained throughout, but every individual muscle is developed harmoniously in accordance with that exaggeration, and strictly parallel with nature, tho far removed from nature's accustomed practice.

Heroic proportions with the Greeks generally included in the height of the figure eight heads; the common standard for minor, or portrait, subjects was seven heads. Thus the smallness of the heads of many ancient heroic statues was the result of deliberate design; as was also the lengthening of the lower limbs beyond the proportions usually found in nature, which lent dignity and elegance to the figure. Winckelmann asserts that the rules of proportion as adopted in art from the human figure were first established by sculptors, and afterwards became canonical in architecture likewise. He states that among the ancients the foot was the standard of the larger measurements. Vitruvius states that the ancients gave their statues six lengths of the foot. Modern sculptors generally adopt the head and face as standards of measurement. In general, the face may be thus divided into three equal parts—the forehead, one; the nose, another; and the mouth and chin included in a third. The ear is of the length of the nose, and parallel with it. The space between the eyes is of the width of one eye, and the base of the nose is of the same width; the mouth half again as wide.

Every sculptor who is thoroughly conversant with his art has these proportional measurements instinctively in mind, and applies them accordingly in modelling a bust or statue. Of course the individuality of portraiture necessitates accidental deviations from arbitrary rules.

A few suggestions may be made with reference to action or pose, as evinced in sculpture. All outward actions of the body proceed from some inward impulse of mind, unconsciously perhaps, but nevertheless they bear strict relation to character. The ancients regarded slow movements of the body as a characteristic of dignity and the profounder movements of thought. Demosthenes reproaches Nicobulus for his quick mode of walking: he connected impudent talking with quick walking. An elegant composure of action is a marked characteristic of Greek art. There is perhaps no more marked contrast in art between the ancient and modern idea of the manifestation of supreme power than that afforded by the Jupiter of Phidias and the Christ of Michael Angelo, as depicted in his "Last Judgment." In the first the expression, the action is one of repose—power at rest, unexercised, undefined, consequently unmeasurable. But the Christ of Michael Angelo, putting forth his denunciation of the damned, evinces a power that must exert itself for a special object, and with a vehemence that is disproportioned to a just conception of that power. The uplifted arm and the lowering features, therefore, suggest finite limitations less grand than the idea of supreme power conceived by the ancients.

As refined taste, no less than great elegance, was displayed by the ancients in their draped statues, drapery is by no means an unimportant element of beauty in sculpture. As more draped than nude figures were executed in the early periods of Greek art—and this continued to be the case in regard to female figures even in the most brilliant epochs, "so that fifty draped statues may be counted for every nude one"—it was, of course, the aim of the sculptor at all times "to attain not less to elegance in drapery than to beauty in the nude figure."

The statues of goddesses and heroines are always draped, with the exception of Venus and the graces. The dress consisted of an upper and an under garment, the pallium and the tunic—the pallium of the Greeks corresponded with the Roman toga; the tunic was of linen; both garments were usually white. The women frequently wore three garments—the mantle, the tunic, and an undergarment of some light fabric, without sleeves, which was fastened together at the shoulder with a button. The usual manner of wearing the toga, as seen in ancient statues, was to draw it under the right arm and cast it over the left shoulder. Elegance was not considered by the ancients a property of the dress itself, but as imparted to it by the wearer in the arrangement of its folds. The earliest Romans are said merely to have worn the toga; the tunic was a later addition. Augustus was reproached for the weakness of wearing nether-garments in cold weather. The Greek statues of Demosthenes and Sophocles are clothed simply with the pallium, or toga. The ancients were never dazzled with the merely ornamental.

The following selection from the "Charmides" of Plato may serve to suggest something of the Greek susceptibility to the beauty of physical form: "'I will question them,' said Socrates, 'whether among the youths of the time there were any that were distinguished for wisdom or for beauty, or for both.' On this, Critias, looking towards the door, where he saw some youths coming in wrangling with one another, and a crowd of others following, said: 'As for beauty, Socrates, you may judge for

yourself; for those who have just entered are the admirers of him who is reckoned the handsomest young man now going; no doubt they are his precursors, and he himself will soon be here.' 'And who, and whose son, is he?' said Socrates. 'You know him,' answered Critias, 'tho he was a child when you went away. It is Charmides, the son of our uncle Glaucon, and my cousin.' 'By Zeus! I knew him,' said Socrates; 'even then he was not ill-favored as a boy; but he must be now quite a young man.' 'You will soon know,' replied Critias, 'how big he is, and how well-favored.' And as he spoke, Charmides entered. seem to me wonderfully tall and beautiful, and all his companions appeared to be in love with him, such an impression and commotion did he make when he came into the room. Other admirers followed him. That we men looked at him with pleasure was natural enough; but I remarked that the boys, even the smallest, never took their eyes off him, but all looked at him like persons admiring a statue."

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JOHN F. WEIR.

THE REGULATION OF RAILROADS.

I N attempting to define the limits of legislative control of railroads, whether do increase it is railroads, whether de jure or de facto, the first requisite is to find with whom, and subject to what conditions, the ownership of them lies. Mankind in their simplicity have believed, and wrought their faith into their fixed and not easily changed modes of speech and action, that those whose funds build the roads own them. If the State builds a railroad, it owns it, as the State of New York owns the Erie Canal. If private individuals, under a charter of incorporation from the State, build a railroad or canal, paying all charges for land, construction, and equipment out of their own pockets, as they have built the New York Central alongside of the Erie Canal, they own it. According to that master of bright legal paradox, Judge Black, in his recent letter, it seems that the common-sense of mankind, asserting itself in its habits of speech and action, has been all astray on this subject. He tells us, "The corporations who have got into the habit of calling themselves the owners of the railroads have no proprietary right, title, or claim to the roads themselves, but a mere franchise annexed to and exercisable thereon." A little farther on, he likens the proprietorship of the stockholders of a railroad to that of a collector of a port in the custom-house he occupies in the discharge of his office. That is, they are not owners at all. The \$5,000,000,000 expended by our own and foreign investors in our railroads give them no ownership whatever. They belong to the State. On whatever theory such a doctrine may be defended, those who advance it need not shrink from being called communists. If this is not communism as respects this immense mass of property, we look in vain for it. Farmers and all other property-holders may as

well understand, withal, that no private property can long survive the grasping of railways by the State. Some indeed, as Mr. Henry George in his "Progress and Poverty" (p. 364), who favor the latter, are already pressing the confiscation of land by confiscating its rents.

But it is said that the State owns these properties because a part of the land they occupy has been obtained, by the exercise of the State's power of eminent domain, from such proprietors as would otherwise refuse to part with it, if not utterly, yet at any fair rates. But this is only the power to get it by paying a fair price, judicially ascertained. To whom does it belong if not to him that pays for it, and so obtains a deed for it? course the State aims in granting this high power, to secure a public benefit otherwise unattainable, by enabling parties willing to incur the expense and risk, to provide means of transportation so indispensable to the people as railways. But could private capital be found to build and run them if it were understood that those who pay for them do not own them? Never. With such an understanding there would not be one mile of railway where now we have ten, and this only of the poorest kind. Besides, what are railway mortgages or debentures worth if given by those who are not owners of the property?

However the title to the railway is acquired by its proprietors, in all circumstances it is subject to State taxation unless expressly relieved by its charter, and also to what is known as the police law of the State, which applies to all property according to its kind. This is simply the means by which the body-politic protects itself from harm. It aims to enforce the principle, sic utere tuo, ut alienum non lædas. All laws designed to protect from injury or destruction the persons or property of those having to do with railroads, whether in moving upon or about them, such as requiring proper brakes, gates, cattle-guards, fences, switching safely, etc., fall under this head.

Railroads also fall under the provisions of the statute and common law respecting common carriers. This because they are such. And this law applies to them in a manner corresponding to their nature and peculiarities, holding them to reasonable precautions to insure safety; responsibility for losses and injuries to persons and property transported

by them arising from want of due care; also to impartiality in their dealings with, and treatment of, all parties applying for transportation by them. Further, like all other common carriers, the common law requires that they shall be "reasonable" in their charges and accommodations, all circumstances considered. All this may be assumed, for the purposes of this discussion, to be enforceable before our courts at common law, without special enactments, however these may sometimes be adopted by legislatures ex abundanti cautela. But it is not so much the principles of impartiality and reasonableness in fares and accommodations that are in debate, as the proper interpretation of and mode of applying them in relation to the peculiar and immensely complicated circumstances of railroads. The consideration of these will bring into its sweep the vexed question of discrimination in rates in all its aspects.

Reasonings based on supposed analogies between railway and other modes of transportation are very apt to mislead. English railroad legislation long proceeded on the theory that they were part of the "king's highway." It tried to fix tolls of particular articles or classes of articles, till they were found to be beyond enumeration or feasible classification, and the whole attempt, like many other forms of legislative interference, has been gradually abandoned as beyond even the "omnipotence of Parliament." With the advantage of unity of government and smallness of territory, regulation of railroads by Parliament has been getting more and more minimized, till some of the pet schemes of our own reformers have been discarded, because outgrown or proved mischievous by experience. The railway is a thing sui generis. It is a highway, resembling a turnpike or canal only in this respect: that it is for purposes of travel or transportation by all who desire to use it, according to the conditions peculiar to it. If built by private capital, it is privileged to obtain a fair remuneration for this, provided the public use of it is sufficient for the purpose.

The fixing of the rate of highway tolls by the charter, or by the legislature, is confined to a few simple things, for which just and plain rates can be made with comparative ease. Neither are such roads common carriers. Those who use them may become common carriers, as they may use any roadway or water-way, natural or artificial, in conformity to its nature, for this purpose. But railroads, while possessing immense capacity for transportation, can only be used by their owners or lessees. only must the road-bed and track be theirs, but all the cars, engines, rolling-stock, machinery, and conveniences for transportation must be so, and worked wholly by them. Theirs alone is the power and responsibility. Otherwise these roadways could not be worked a single week without numerous collisions and wreckings. They can transport for others, but they cannot allow others to put their own cars and engines on their road at pleasure. Their charges must be for transporting persons and freight in vehicles, and by motors and employés wholly their own, or wholly subject to their control. Now this involves an enormous expense for repairs of road, track, bridges, locomotives, cars, motive power, the vast pay-roll of employés, etc., which must be reimbursed from receipts for what they transport; if possible, too, with due remuneration to the capital invested. Here is a vast complexity of expenses, also, in the kinds and amounts of the articles transported, and of the conditions and circumstances which affect the relative cost of such transportation. It is not within the capacity of any legislature, or commission thereof, to adjust a tariff with reference to each article, or classification of articles, that shall be always and everywhere reasonable. problem is so intricate as to prevent more than an approximate adjustment of it, even after the longest experience, by railroad experts and officials themselves. It is ever growing upon them with new elements of intricacy, and tasking their ingenuity for solution. The past twenty years have shown that fluctuations in the price of labor and the purchasing power of legal-tender money, not less than other causes, render any just fixing of rates by law impossible.

Meanwhile, nothing in the premises impairs the obligation of impartiality on the part of railroads towards their patrons; that is, of affording all, equal accommodations at precisely equal rates, under precisely like circumstances. If A and B, at the same time and place, ask like rates for precisely like service, impartiality requires that they both be treated alike. That there have been some rather gross violations of this is prima facie established by the testimony taken before the Investigat-

ing Committee of the New York Legislature; pre-eminently in the case of the Standard Oil Company and its accessories. If the railroads made any contract, as is alleged and we have not seen disproved, with this company or its accessories which were refused to others in like circumstances, and especially a covenant to protect any of these corporations from "competition," all this is beyond their legitimate province, and contrary to public policy and morality. No denial nor adequate justification of having made considerably lower charges for grain transportation to some great houses in New York than to others has been brought to our knowledge. Probably a sufficiently keen experience of the effect of such real or apparent partiality has been had to prevent its repetition. Probably, too, without the veil of secrecy these transactions would not have occurred.

On the other hand, we see no sufficient reason for antidiscrimination statutes based on the assumption that, in order to be reasonable and impartial, rates must vary just in proportion to the amount; distance, or speed of transportation. In order to partiality, unequal favor must be shown to different persons in like circumstances. Now this does not apply where a greater proportionate charge is made for a shorter than a longer haul of the same goods, when the expense of terminal handling is the same for each. A high authority, speaking from experience, says that the terminal expenses in New York, interest of capital and all else considered, are equal to one hundred miles of haulage. Consequently the cost of freight-carriage from New York to Newark, nine miles, is more than half that to Philadelphia, ninety miles. It varies, too, with severity of grades, cost of construction, fuel, etc. Nor does a failure to vary charges as the amount carried, ceteris paribus, necessarily infer partiality. It is so evident that larger amounts can be carried proportionably cheaper than smaller ones, that this has generally been conceded by the most extravagant adversaries. It is perfectly evident that one thousand car-loads could be profitably taken from Chicago to New York at proportionably lower rates than twenty. Nay, more: it is demonstrable that it sometimes costs more to carry a single or few parcels, parts of car-loads, carload, or car-loads, a shorter distance than a longer, over which trains loaded to the full capacity of the engine can be carried to

adequate terminal facilities. A full train of anthracite coal can be taken from Easton to Trenton at fifty cents per ton. To drop a single car-load of six or eight tons at a way-station on the road would, we learn, cost four dollars, besides the cost of the haul there. It can hardly be questioned that a full freight-train from Chicago to New York can take on its full maximum there at a cheaper rate per car than it can switch off and otherwise handle from one to half a dozen cars at Fonda, Deposit, Cresson, or Martinsburg.

Anti-discrimination statutes, hardening into inflexible laws, may cause more real partiality than impartiality. Mathematical ratios seem very conclusive in the abstract, until, in their concrete application, they are often antagonized by forces as inevitable as those which thwart the finest contrivance for perpetual motion. The law of impartiality is right. Any fixing of rates by law to enforce, is pretty sure to defeat it, as much so as a law that street-cars and omnibuses should charge in exact proportion to the mileage, or hotels in proportion to the stay of guests, irrespective of other considerations. What cannot be accomplished by competition, the desire of patronage, public opinion, and the like, in these respects, never can be effected by mathematical legislation. Imperfections and grievances will doubtless remain, at the best, here and everywhere. But all these things in railroads, and other matters innumerable, whether, as Lord Coke said, "affected with a public interest" or not, might be immeasurably worse. In our opinion legislative interference of the kind invoked would be sure to make them so. Such has been the effect of it in the Granger States, in Colorado, in Great Britain, where, of one kind and another, it has been annulled or minimized after experience of its unhappy effects. The courts can now enforce impartiality as binding at common law on the common carrier. It is for them to determine in each concrete case brought before them, whether and how far parties differently charged or otherwise treated were in such "like circumstances" as to constitute the action complained of a breach of impartiality. But legislatures can rarely frame laws to determine this that would not encounter as many exceptions as a

¹ See "Railroads: their Origin and Progress," by C. F. Adams, Jr., pp. 80-90.

revival of the obsolete laws fixing the price of bread and meat, or a law that merchants should show impartiality by charging at the same rate for a piece, a bale, or a hundred bales of the same kinds of goods, and not higher than a certain maximum profit of ten per cent in any case. As to any secret rates, drawbacks, rebates, contracts inconsistent with this impartiality, they are not to be defended. Yet we find that Belgium, in working her own state railroads, fell into the system of "special rates." Abuses of this sort have grown up which due publicity will rapidly reduce to a minimum.

But it will not do to say that a railroad may not regulate its rates to a reasonable extent for the purpose of developing business on its line, because the power is liable to abuse. All power has this liability. Denied this privilege, many of them would never be built, especially those depending on landgrants or running through new and sparsely settled countries. No doubt special rates may be made in order to plant or develop or keep alive a business that will directly or indirectly bring valuable patronage to the railroad. Still this must be subject to the law of impartiality; i.e., it must be done alike for all and each in like circumstances. "Reasonable" is the standard established by the common law in regard to all demands by and upon railroads, whether relating to the police regulations for the safety of all persons and property dependent on their care and vigilance, or to the requisites to impartiality. The courts are to ascertain and judge of this "reasonableness" in actual cases brought before them. No cast-iron statute inflexible to circumstances can do it. And this reasonableness may vary with the circumstances of different roads. It might seem a good law that no cars shall be run without Westinghouse air-brakes. How soon may a cheaper and better brake be invented? Or how many roads are unable without bankruptcy to come up to this grade of high equipment? A decision in a recent case by a Kentucky court shows how exquisitely such a tribunal may ascertain the "reasonable" in an actual case, when an unbending statute would be a signal instance of summa lex, summa injuria. It was a question of damages for the death of

^{1 &}quot;Railroads: their Origin and Progress," p. 90.

a person caused by the wrecking of a train running into a herd of cattle on the track, where there was no negligence on the part of the employés of the road, or failure to use all available means to prevent the disaster. But it was proved that, with Westinghouse air-brakes, it might have been averted. Hence it was claimed and adjudged that the company was able to provide them, and therefore liable for lack of due care and diligence in not providing them.

We have seen how utterly inapt legislation is, which attempts to proportion charges to distance or amount of transportation in all circumstances. Moreover, the value of the service of the railroads at different places must or certainly ought to weigh in determining charges. The value of any service, when rendered to others for compensation, is what they can pay with advantage, and will pay, rather than not have it. Now, in the case of railway transportation, that value varies greatly for a like amount of service at different places and times. Where there is a competing water or railway communication, exactly the same service may be worth far less than where there is none, and more at some of these latter places than at others. The number of railroads is large which cannot pay expenses, unless they can charge all along the line in some proportion to the value of the service rendered. The number is much larger in which no proper remuneration of capital can be made without this liberty. cannot fairly live without adding to the higher rates which they can command where there is no competition, the lower which is the most they can get where there is competition. Without this they may be unable to maintain the expenses of the trains that carry all they can get, but not to half their capacity, at the higher If they were shut up to either class alone, or if they were obliged to carry all at the lowest rates of competitive points, they could not live, much less thrive, or get beyond that starveling standard which necessitates the highest rates for the poorest service, and adds to a famishing railroad a famishing population alongside of it.

All this is conclusively demonstrated by M. de la Gournerie, Inspector-General of the French Corps of Bridges and Highways, to be true not only of railway but other modes of transportation, in an article published in the "Bulletin of the Society for the Encouragement of National Industry in France," and republished in the Appendix to the volume of "Testimony of George R. Blanchard before the Investigating Committee of New York State." (pp. 682-3.)

This brings us to the "pooling" now so largely adopted by the railroads at their great competitive centres, especially in the interior, for carriage to the seaboard. There have no doubt been just causes for grievance to shippers and merchants in the sudden fluctuations of rates of transportation from these great centres, thus adding another element to the capricious uncertainties so baneful to sound business. It was the shock of competition between these colossal carrying agents—a shock as inevitable as the collisions of trains which made such havoc with life, limb, and goods in the early days of railroads, and which, after all the securities devised to prevent them, will occasionally recur. Desperate unregulated competition tends sooner or later to the ruin of the roads and the injury of the people. Now there are only three ways of ending it: I. Governmental prohibition, which means forbidding any railroad to carry between competitive points below a certain minimum rate. And what legislature. State or national, will undertake to forbid a railroad from carrying as cheaply as it pleases? Or 2. By the stronger crushing out the weaker, resulting in a survival of the strongest only, if not the fittest. Is this the issue coveted? Or 3. What, in slang phrase, is called "pooling," and is advocated by such competent observers and long students of the subject as C. F. Adams, Ir., under the more dignified title of the "Federation of Railroads." The essence of this is an agreement among them for each to accept as its share of the competitive business, at a moderately remunerative rate common to all, what shall be judged to be its just proportion by an umpire or board selected by them all to make the apportionment. This is vehemently attacked by some. It is said to deprive the public of the benefits of competition. It has, however, only ended an extreme competition ruinous to all parties. Mr. Simon Sterne, in his great argument before the Special Assembly Committee versus the railroads, admits that it

¹ On this subject the writer advances no opinions not to be found in his article on the "Great Railroad Strike," in the *Presbyterian Quarterly and Princeton Review*, for October, 1877.

"has brought about a change for the better from that which prevailed immediately before the pooling arrangements were made" (p. 97). He insists that it "has been discovered in this country and England that competition was not the proper regulator of railway charges" (p. 104).

The several doctrines on this subject insisted on by the assailants of the proper autonomy of railroads, would either destroy them or greatly aggravate the evils of which they com-Suppose that, first, there could be no stop or check to the internecine competition at Chicago, St. Louis, and elsewhere, and, next, that railroads must charge the same proportionate rates from all other points as from these. If they should continue the competitive through business, and do all other business at these ruinous rates, this would soon bankrupt and wreck them. If they discontinued the through competitive business, they would be obliged to charge higher local rates from non-competitive places than ever. Or, if this were impracticable, the road would sink in its condition, equipments, capacity for speed, safety, and accommodation far below what it is when great through trains help sustain and make profitable a more perfect road, and increased accommodations in every department. All places gain on the whole, even if any lose in some particulars, from the reinforcement of local with through business. They commonly have better roads, better tracks, better trains, and more of them.

In connection with the proportioning of railroad charges to the value of their services, the question of charging for carrying articles "what they will bear" comes in. This vague and elastic phrase has figured very odiously, and played an important part in late railroad controversies. It was employed in a joint answer of the presidents of the two great New York trunkroads to the inquiries of the legislative committee as follows:

"The managers of a railway company desire to make all the money they can for their clients, and to do this they have before them the question, What rate, within their chartered limits, will an article bear that will yield the largest profit, and at the same time stimulate its production."

We have not struck upon the origin of a different twist of this phrase put in quotation-marks in the question of the New York Chamber of Commerce Committee, which professes to give the true meaning of the doctrine on this subject of late sanctioned by authoritative railroad managers:

"7. Do you think it is safe to allow railroad managers to disregard the old theory upon which charges for transportation were based; namely, that they should be 'reasonable' and based upon 'cost of service,' and adopt the new theory which they have annunciated of charging 'all the traffic will bear,' themselves being sole judges of this question?"

Yet the principle involved is so obvious that the framers of the question are constrained to admit it in the very document containing it. A page or two farther on in their Report they say:

"Of course the consideration of what the traffic will bear is one of the elements entering into the fixing of all rates for transportation, but to formally recognize the abrogation of a principle as great as competition is a step your Committee believe the American people are not ready to take."

Why, then, object to railroads considering "what the traffic will bear" in adjusting their tariff, if in the nature of things it must come in? It is impossible to exclude the value element of railroad service from the estimation of its proper price. To put it as the seventh question above quoted puts it, as if this were a new standard, excluding "reasonableness," consideration of "cost of service" and competition, is absurd. By their own showing it must be a great element in determining "reasonableness" of charges, and the necessity of it grows out of competition at least as often as anything else.

As to "abrogating competition" in transportation, it is impossible and undesirable. It needs regulation, not destruction. Like so many other things, within bounds it is an inestimable good; beyond these it becomes an agent of devastation and ruin, like an uncontrolled locomotive, or a fire let loose. Abrogate competition! As soon abrogate gravitation or the tides! There are forces that will and must prevent transportation charges from competitive points rising for any length of time above, if they cannot prevent their falling below, a reasonable standard. One is the great navigable water-courses from the interior, west, south, north, and south-west to the ocean. Another is the steady multiplication of new lines from the great interior railroad centres where agricultural products accumulate for transportation to the Atlantic and gulf ports. Now if from

great competitive points, which these new lines are constantly reaching, profits can be made at much lower rates than those now established by mutual agreement of existing lines, the new lines will immediately "cut under" them, in order to grasp a larger share of the business than they could be allowed in the pool. Here is competition. Not only so; but rates must be limited by the very nature of things unless the managers would limit and minimize their business. If their rates rise above certain limits, they raise the price of our products in foreign markets too high for export, and consequently cut off transportation for this purpose. This of such great entrepots for distribution and transportation at home and abroad as Chicago, St. Louis, and Kansas City. But there is hardly a local town of importance on our great trunk-lines which is not pierced by competing lines. direct or indirect, to all important points, in addition to navigable waters in close proximity. Moreover, an undue tariff from any place of importance is sure sooner or later to bring competition. and to impair the business and patronage that would otherwise arise. If all these were abolished, the competition between cities would still operate. There are forces more certain and mighty than legislation that will keep alive all that is healthy in competition, especially so long as a general railroad law, now almost universally prevalent, confronts special charters and monopoly privileges.

The report from which we have just quoted proposes what is so often and loudly urged, that the people should "take every constitutional means to prohibit combinations and enforce competition;" as if the two were incompatible. We do not see how. Combinations are of two kinds; either of those which form parts of a continuous line, as the several roads between New York, Albany, and Buffalo, which were combined in one corporation, the New York Central and Hudson; or of those which go from one point to another by different routes, as the New York Central and Hudson, and the Pennsylvania, from Chicago to New York City. The former sort of consolidation it is about as easy, sensible, and advantageous to prevent, as it would be to turn the Hudson River into a series of separate levels by dam and lock for slack-water navigation. The vast gain in economy, speed, safety, profit of transportation to the railroads and the public,

from placing long stretches of railroad under one direction is too plain to be disputed. The progress of such unification can no more be arrested than the westward march of empire. Probably, however, it is the other form of "combination" that legislation is to be invoked to prevent; viz., an understanding between roads running from one competing point to another by different routes. It will take something more than legislation to prevent forwarders from the same place to the same place charging the same rates, and from having a mutual understanding what this rate shall be. Adversaries themselves being judges, this is far better for all parties than desperate and reckless competition.

But railroads are corporations, and corporations are the portents of the time, mightier than the people, and swaving an iron sceptre over them. Surely human depravity worms itself into corporations as well as elsewhere, and in all places in some proportion to the scope offered it. The question is not whether it shall, but how it shall least, infest all things human. those who are declaiming and raving against corporations really think themselves through to the logical outcome of such assaults? It is utterly impossible to harness the gigantic forces of nature to serve man, as steam is now made to do. without employing immense masses of capital for this purpose. Small capitalists are debarred from all possible participation in this kind of property, unless it is divided into shares capable of distribution and ownership in larger or smaller parcels, held and managed by a corporation. Otherwise these vast properties so necessary to the convenience, commerce, and productiveness of the country, must be exclusively the private property of single or few individuals. Is that the alternative so Probably not. The outcry against corporamuch coveted? tions is an outcry not only against a few railroad magnates, but against the vast multitude of small owners, including widows and orphans and the prudent laborer whose savings are invested in them, whether they be railroads, canals, banks, mines, manufactories, steamboat companies, or whatever else. To hurl these catapults at corporations is but saying, either that the productive properties they hold shall be annihilated; or that they shall be owned by individuals, single or in partnership; or that they shall be owned by the State-from which latter condition we might

expect utter political demoralization and national bankruptcy. What are all the present "spoils of victory" in elections in comparison with a prize of \$5,000,000, now rapidly expanding to \$10,000,000,000? Where the carcass is, there are the vultures. Are not our river and harbor bills proof enough of this? And as surely as every Stony Brook or Buttermilk Falls now demands its appropriation as a condition of voting for appropriations for improving real harbors, will not every crossroad demand its railroad station as a condition of authorizing really national lines? Is it not pretty certain, too, that when other revenues for the purpose fail from exhaustion, the vacuum will be supplied by the indefinite issue of irredeemable legaltender paper money—from all which may God deliver us! Demagogues are already proposing, as the watchward of future political campaigns, that "all privileges conferred upon corporations are rights taken from the great body of the people," and to "assail corporations and the officials who act in their interests," and "on this line to establish an aggressive campaign." Such people may light a fire. Any incendiary can do this. It does not follow that they can so easily put it out before it burns them out. Let this raid on corporations succeed in destroying them, and they may contend for other property tenures who will. They will doubtless get their labor for their The great landholders will come next, and the smaller ones will quickly be drawn into their wake. Agrarianism and communism will luxuriate in the ashes of their own fires.

We may not ignore the fierce outcry against railroads as monopolies and extortioners. Judge Cooley says: "The word monopoly has an ominous sound to American ears, and whenever the appellation fairly attaches itself to anything, it is already condemned in the public mind" (PRINCETON REVIEW, March 1878, p. 257). Hence the eagerness with which the assailants of any kind of business, privilege, or property try to make it odious by hurling at it the epithets of monopoly or extortion. But in no proper sense are the railroads of the country monopolies. They are all exposed to the construction of competing lines, and it is only the fewest that have wholly escaped, and fewer still that will hereafter wholly escape competition. Most of the States allow the construction of railroads ad libitum, under general laws. In

others, special charters are freely granted when asked by petitioners able and willing to build roads. No vestige of railroad monopoly exists. To say that because people have only a single railroad near them, therefore this road has monopoly privileges, is like saying that cases of being near a single store, or craftsman, or hotel, turns them into monopolies.

Never was a truer sentence uttered than that of the late Dr. Chapin at some festivity in New York: "THE LOCOMOTIVE IS A GREAT DEMOCRAT." Nowhere, not even at the polls, are all more completely on a level than in the American railway-car. and that, too, in the enjoyment of advantages and comforts unknown half a century ago to the proudest monarchs, with thousands of chariots and horses at their command. But the steam-chariot cannot thus be a great democrat without being also, within due limits, a great autocrat. On his own road he must be sovereign. All else must give way and clear the track. Nothing must or can stand before him. One master-mind, too, must rule the whole road and its motors, or confusion and desolation come in place of those blessings which, rightly guided, with colossal might, he bestows on all. And yet, as with man himself, his unmatched strength is close to the greatest weakness. The endowments whereby man is a but little lower than an angel, in the very image of his God, make him capable of becoming a very worm, a brute, a fiend, "crushed before the So, if the locomotive can move man and his products with a resistless energy and speed, a rotten tie, a loose spike, an unseen flaw, a mischievous boy, or senseless animal may get in its way, and, even if destroyed itself, precipitate it and its train to utter destruction.

We have uttered no uncertain sound in favor of regulated, and against reckless, competition. Not less than for other reasons we favor the "federation of railroads" in order to fix steady and fair prices for transportation, and prevent such evils, so far as they are due to this cause. Nor have we yet heard of any other mode of preventing these that would not bring in tenfold greater ones. But, as it is not possible that all evil can be utterly eliminated from competition, or anything else earthly and human, however beneficial on the whole, let us none the less do our best to minimize it. It is also worth while to remember

that fluctuation of railroad rates is, even at its worst, but one of many more formidable, yet unjustifiable, causes of such fluctuations, which are quite beyond the reach of legislation. We speak not now of those which arise from fluctuations of supply and demand, issuing from providential causes, such as the state of the crops, markets, belligerent or peaceful relations at home and abroad, but rather of what is due to the voluntary interference of mischievous human agencies. Prices of the chief articles of railroad transportation are constantly forced up and down, not only to the prodigious risk and frequent ruin of dealers in these articles, but even to the taking of the bread out of the mouths, the life-blood out of the veins, of the poor and needy, and the stinting of the comforts and necessaries of life for the average laborer. What are all the variations of railroad charges in their effects on merchants, shopkeepers, and the cost of subsistence to the people, compared with the "corners" produced by the great speculators and Napoleonic gamblers in wheat, pork, cotton, coffee, and the like, who seek to control the market, and, by monopoly prices, to enrich themselves through a forced levy on every consumer in the land? To wrench these out of the people by a turn of their speculative crank is to such men as light a matter as a snap of the finger. We notice names connected with this onset upon railroads for causing fluctuations of prices, of men who have alternately grasped millions and got mired in bankruptcy by such foolhardy tossing of the dice, to gain or lose all, in trying to monopolize and force up the prices of indispensable necessaries or comforts of life. What then? Can legislation stop it? It has not been yet found how, without interfering with that freedom of contract which is one of the highest prerogatives of man, to surrender which is a degradation, to possess which is to possess what is capable of immense abuses as well as noblest uses.

Men are about Wall Street not only dealing legitimately in money and securities, but wielding money by the million, and tens of millions, for the sole purpose of so raising or depressing prices as may further their speculative movements. Nothing is more common than to loan millions one day upon call to tempt smaller speculators for a rising market, and to call it in the next day, or when it suits their purpose, so as to strangle the simple-

tons they have lured into their toils. This not only makes or ruins, helps or hurts, the neophytes who are scenting the Stock Exchange for the chance of finding a bonanza in the wake of the "great operators," but it tightens money and causes injury in every department of business, and nowhere more than in produce, groceries, and dry-goods. Can any legislation be devised to stop this which will not do far more harm than good? Even in the church, tares will get mixed with the wheat, often so that they cannot be rooted out without destroying the wheat.

Much is said of railroads revolutionizing the seats of trade and of special industries. There is no doubt of it and no help for it, nor is this any just ground of complaint, unless it be caused by what, all things considered, is partiality towards particular persons and places. It has been the effect of improved methods and routes of transportation and travel in all ages and countries. The Erie Canal pushed the great sources of wheat and lumber supply to the west of where it had been. The railroads have driven them still farther and yet farther west. is inevitable. As surely as man will seek the maximum of utilities with the minimum of effort, he will use the railroads and steamships to this end when he can. What then? Has this destroyed or impaired agriculture in the Eastern or Middle States? Never. It has changed the form of it somewhat. But statistics show a great increase in Massachusetts and New York of the number of farms, the quantity, variety, and value of their products, nay, even a considerable advance in the amount of wheat raised in the Empire State. That some thin and exhausted farms should be abandoned or pass into the hands of foreign-born laborers now become capitalists is a matter of course, railroads or no railroads. To complain, as some do, that one cannot be sure that the business-place he buys in New York now may not be less suitable and valuable five years hence, and lay it to the charge of the railroads, is puerile. It is hardly forty years since the average New York merchant felt that he had made the surest provision for his family if he left them stores in Pearl Street, then the centre of dry-goods jobbing. This has since crept up Broadway and cross-streets, till it centres around Franklin Street, while Pearl Street property is relatively second or third class. Scarcely a generation has passed since the Astor

House was the leading hotel, without a rival above City Hall Park, and considerably less than half a century since it was built. The railroads are responsible for this only as they are responsible for the growth of the metropolis.

The question of limiting the earnings or dividends of railroads has come into some prominence in connection with these discussions. This cannot be of great moment as long as the average dividends of the railroads of the country are about two, and in the most favored States ordinarily only three, per cent on their capital.1 Of the great trunk-lines, the Erie with its enormous earnings is, and always has been, saying nothing of the future, far enough from any dividends from earnings. The Pennsylvania had to suspend them for years, and the Baltimore and Ohio at various times. Mr. Hepburn, Bank Superintendent of the State of New York, says, in his recent report, that in the State of New York, "excluding leased lines, there are only two railroads, the New York Central and Hudson, and Boston and Albany, that for five years past have paid consecutive annual dividends amounting to five per cent each." 2 As to the leased lines, the lessees, with a single exception, to the best of our knowledge, altho ranking as wealthy corporations, have paid no, or next to no, dividends for nearly the same period. Now as to profits, New York railroads stand high, on the average, in competition with those of the entire United States. The risks, therefore, of railroad investment are something tremendous, arising from various sources: the frequent lack of remunerative business; the liability to lose it through the construction of competing lines; the exposure to all sorts of destructive casualties from fire, flood, tempest, collisions, flaws in rolling-stock or rails; the neglect or forgetfulness of servants. in all of which the railway company, i.e. stockholders, must indemnify for losses and injuries, sometimes of prodigious magnitude, consuming profits, and even bankrupting roads. At best there is the constant exposure to new and competing roads which may render a property, before valuable, utterly or comparatively valueless. The risks are therefore immense. All losses must be

¹ See "Railroads of the U. S.," by Edward Atkinson, p. 29.

² Supplement to Com. and Financial Chronicle, Feb. 1881, pp. 1, 2.

borne by the stockholders first and creditors next. Must the shareholders be cut off from all chances not only of fair interest upon the capital invested, but even of generous profits in the very exceptional instances in which rare opportunities and management may honestly yield them? If so, this is unlike any Capital will instinctively be shy of it if it must bear the most unlimited losses, with no chance for the gains when they are handsome. In point of fact the cases are few in which railroads have averaged six per cent from the first; fewer still that have averaged eight. Most roads now solid and paying handsome dividends for years paid none. On the other hand, many roads once dividing ten per cent have come to divide nothing. As to stock dividends, in slang phrase called "stock-watering," if they represent earnings applied to the improvement of the road rather than to dividends when earned, what can be more just? If made on no such basis, they are only the company's choice as to number or form of shares.

As a general principle, we doubt the policy of restricting the earnings of railroads by legislation. We think prosperous railroads a far greater blessing to the community than bankrupt, starving, or poorly paid ones. They are more likely to keep up and advance their roads to the highest state of speed, safety, commodiousness, in order to keep and increase their business, by cheapening its cost to themselves and the public, while they increase its quantity. Thus only can they withstand competi-Thus only can come the substitution of steel for iron rails; of heavy rails for lighter ones; of heavy for slender ties; of broken stone for ground ballasting; of a double for single track; of a triple or quadruple for a double track; of stone or iron for wooden bridges; of crossings above or below other roads instead of at grade, or, where this is impracticable, the substitution for it of gates and flagmen; the increase of terminal facilities so necessary and yet so costly in our great marts of trade. A railroad is never completed, and the further it is perfected in such a way as to lessen its risks and the danger to those who use it, to cheapen and expedite its service, while this is responded to by an increase of business that warrants and takes advantage of it, the better for the public and the road.

So statistical tables show on the great-trunk lines a constant

growth of business, at constantly decreasing rates and charges, and a gradual increase of profits, until their charges have fallen a great deal below a cent a ton per mile. Yet they are able, by means of their economies and improvements, to make money now at rates that would have bankrupted them a few years ago. and would now bankrupt them upon a small business. believes that any such result could have been reached under any conceivable system of State management; i.e., management at the behest of politicians dependent on universal suffrage for their places and opportunities of emolument? For, after all, it will turn out that those who control the votes which lift political parties to the ascendency will for the most part have the places at their command. And it is one thing to regulate railroads or any other business by selecting for service persons because they can command votes, and another by selecting them on account of their pre-eminent fitness for the position they fill. Gen. I. H. Devereaux has been recently reported as saying:

"Tonnage is so heavy that the difference of the small sum of one mill per ton makes the difference of a dividend or bankruptcy. On my road it makes something like \$400,000 difference, while on the New York Central, I do not hesitate to say, I think it makes a difference of \$2,000,000."

Think of that, and think of the legislature attempting to fix a tariff. It were better occupied splitting hairs, or seeking Captain Kidd's treasure. The fact is, had it undertaken any such function in the past, the economy of railroad transportation never would have reached this "fine point." If the New York Legislature prohibits "discrimination" charges on the railroads no more than it does on the canals it owns, they have not much to fear in this way. It is stated that the Canal Board has abolished all tolls on west-bound traffic—but that it discriminates against all salt made out of the State; doubtless in the interests of the farmers and butter-makers on its line and beyond, who could well afford to quadruple railroad freights if they could thus expel counterfeit butter from the market.

The railroads have received their charters from the States. They are subject to the police regulations of States; to State taxation; to the principles of common law applicable to them as common carriers or otherwise; to such statute laws of States

adapted to their special peculiarities, with respect to these matters, as may be found necessary and involve no violation of their charters. But they are entitled to the unimpeded use of the privileges granted in their charters, short of manifest abuse. This cannot be interfered with without violation of that clause of the national constitution which forbids any action by State authorities impairing the obligation of contracts. And for reasons already adduced, we do not think the exercise of the State power to interfere by statute with railroad tariffs ordinarily expedient, even if its existence were unquestioned. No clear judgment in respect to this power, so far as we knew, has yet been given by the U. S. Supreme Court. That given in the granger cases related to roads in which the States reserved in the charters given the power to change them at pleasure. It has no reference to charters not thus conditioned. But the experience of the effects of this granger legislation and its like everywhere has led to its substantial abandonment, as hurting not only the railroads, but still more the people.3

What is known as the Reagan bill in Congress reported from the same committee as the River and Harbor bill, by Mr. Reagan as chairman, would be vastly more mischievous than the granger legislation of the North-west. Several features of it are obnoxious; such as making a "car-load the unit," prohibiting pooling, enforcing the same proportional rate for one as any number of such loads, and applying criminal penalties for charging more than reasonable rates without clearly defining what is a reasonable rate. This is a very different thing from a railroad being answerable in damages for charging unreasonable rates, the

1 "Wherever State control or ownership has been attempted, it has failed to promote cheap railway service. The history of the Tunnel and the Hartford and Erie legislation, when fully written, will be marked not only by their utter failure in securing the objects aimed at, but by corruption and fraud, by the subornation of legislators, by the prostitution of the powers entrusted to the senators and representatives for private ends, and even in the very last session by the open surrender of the interests of the State to the supposed requirements of the private clients of legislators." (Atkinson, p. 28.) See also that bright book, "Chapters in Erie," by C. F. Adams, Jr., for still more terrible legislative and judicial prostitution in lending support to plunderings of stockholders of railroads, on a scale of enormity to which civilization furnishes scarcely a parallel. Let the eighthour laws of Congress, the New York capitol, the New York City court-house, the canal rings, the street-cleaning of the city, the pilot monopolies, convey their own lesson on the management of railroads by politicians.

courts being judges of all the circumstances in each case which make them reasonable or unreasonable. But our objection to this national interference lies deeper. The general question of trenching on the prerogatives of the States aside, we believe this whole pretension is ultra vires, beyond the scope of national power over interstate commerce. So far as we know, this power has never been exercised, even if it has been invoked, to determine the prices of interstate transportation. It was, we believe, never conveyed for any such purpose in our national Constitution. It has been exercised chiefly, if not wholly, to remove obstacles interposed or permitted by the States to free commercial interchange between them, or between this and foreign countries. Can the national government, under pretext of regulating interstate or foreign commerce, say what carrying vessels and steamers on the Ohio, Missouri, Mississippi, the Delaware, the Atlantic coast, across the ocean, shall charge for passengers and freight? If they can, the power is merely theoretical, which may as wisely be exercised as the power to secure the importation of wheat into the United States, if such power exists. We have a still deeper aversion to this from the practical side, for reasons so well stated in the answer of the Massachusetts Commissioners to the Chamber of Commerce committee, which our limits prevent us from quoting. It proves that all present evils connected with railroad management compare with what would grow out of congressional supervision, as ant-hills with mountains.

There is, however, one danger to our channels of interstate communication by railroad with which the power of the national government is alone adequate to cope, and which it ought effectually and promptly to prepare itself to meet. We refer to the violent stoppage of these arteries of the national life by strikes, mobs, and riots, of which the great railroad strike of 1877 gave us dire experience and ample premonition. The days and weeks in which violent men stopped the interflow of commodities between the interior and the seaboard amounted to a reign of terror, and showed us how quickly it could not only arrest foreign and domestic commerce, but precipitate a famine. We know not how soon this may occur again. The last two commercial panics (in 1857 and 1873) were precipitated by sinking immense amounts of capital in unproductive railroad-building.

This process has commenced already. Brokers are, as we now write, offering 6-per-cent gold railroad bonds at about 90. General Devereaux predicts a speedy crash. We trust it is not near. But come in due time it will and must, necessitating that lowering of wages which is sure to be resented by strikes. These might be borne if other workmen were allowed to take the strikers' places. But that is resisted by violence, else the strikers are baffled. Now here is the time and place for the national government to intervene with its fullest power; to insist that these arteries of interstate commerce shall not be cut, and to protect the liberty of all to work the railroads without molestation, by grapeshot and cannon-ball if need be. Was it not humiliating, in 1873 that this great nation was disabled by mobs and ruffians from carrying its own mails with punctuality and regularity? And are any wire-drawn theories about overriding State rights again to fetter and disable the nation from defending its own life and property in mob-beleagured States?

We will only add that laws are needed to prevent fraud on the part of projectors and managers of railroads, by which they dishonestly tempt the ignorant and unwary to sink their savings in mere speculative enterprises, or by which the stockholders in good railroads are unwittingly stripped of their property for the special behoof of the managers. Railroads ought seldom, in our judgment, to be allowed to create a bonded debt or advertise bonds for sale not backed by something like an equal amount already expended on the road, or its equivalent in lands as security. Rarely, if ever, should railroad managers be allowed to buy, lease, or otherwise get control of a connecting or parallel road with the funds or on the responsibility of the original road, without sanction of the stockholders first obtained after due notice. Many roads have been weighed down by onerous leases of this kind which have inured to the benefit of managing rings at the cost of the stock- and bond-holders. We believe that due publicity here as in regard to rates of transportation, and all the rebates and drawbacks heretofore too often kept secret, would prove the sure and adequate remedy for the evils that have furnished any serious ground of complaint.

LYMAN H. ATWATER.

ON THE SO-CALLED SCIENCE OF RELIGION.

THE comparative study of the non-Christian religions has, as every one knows, become in recent time a prominent subject of public attention, and is likely so to continue. even been ticketed with the name of a "science," in accordance with the fashion of the day-or, it may be said, with the intent of claiming for this department of investigation a breadth of basis, a strictness of method, and a certainty of attained results analogous with those of other departments commonly called by the same name. As to whether the claim is well founded opinions will, and with good reason, differ; yet many who now regard the title as at the best prematurely assumed will allow that the study may, if successfully conducted, grow into the proportions and solidity of a science. In any event, it is desirable to see what are the fundamental views held, rightly or wrongly, by those who are devoting themselves to the science; and to set these forth, as looked at from its own point of view, is the object of the present paper.

The new "science" is an inseparable part of the study of prehistoric man, of the origin and development of his culture, his knowledge, his institutions, and his arts. Its nearest affinity is with the modern science of language. The analogy between the two is so close that the one is constantly called in to illustrate the other. Almost every student of general language is drawn over perforce to investigate the history of religions also; and in popular opinion (especially among English-speaking peoples) the same authority is even credited with the establishment of both, and with just about as much and as little reason in the one case as in the other. Beliefs and practices such as we call religious are as widely found among men as any of the other ordinary constituents of human culture (whether they are to be deemed universal is a point considered further on); and the method of their fruitful study must plainly be, like that of all the rest, a comparative one: the widest possible collection and co-ordination of facts, with careful deduction of general principles and determination of causes. There can be no successful investigation of any part of man's historical development in any other way; we are too much the creatures of habit and of the prejudice engendered by habit to comprehend the character of what we ourselves possess, or to see how we should have come into possession of it, save as we set it beside the kindred possessions of our fellow-men.

It has been till recently, and is still to a considerable extent, the prevalent assumption that the universality of religious phenomena among men could have no other ground than a primitive revelation of some sort, a miraculous communication to the ancestors of our race of a certain amount of absolute truth respecting the unseen world and man's relations to that world, which truth has been variously lost and disguised and corrupted. till in place of it have come the systems, ranging through every conceivable degree of falsity and degrading absurdity, which we find to have actually existed in the earth since the first beginning of historical record. If this were true, the task of a science of religion would be to determine the amount and character of that primitive revelation, and to demonstrate in human nature and human circumstances the reasons of so signal a disappointment of the purposes of the revealer in making it. This would furnish sphere and occupation enough for the scientific student.

But it hardly needs to be pointed out that the whole tendency of modern scientific thought is opposed to the passing of such an assumption unchallenged. It seems a part of the old free-and-easy system of accounting by a miracle for anything that seems difficult of explanation; and that system has long been tumbling to pieces, undermined by historical research. Until within a comparatively short time, it was questioned by no one that the earth was turned out of hand a few thousand years ago, called up out of nothing as a ready-furnished abode for men, with a firmament of heavenly bodies revolving about it for his convenience and pleasure. At present no cultivated

person holds any such view; we recognize the action of secondary causes, operating through immense periods of time, as finally bringing about the state of things with which we are familiar the last (so far) of a series of states which were very different from it and from one another. An example of closer application is presented by language: the doctrine was formerly current that a ready-made vocabulary and grammar had been put into the minds and mouths of the first human beings by a superhuman agency; and that variation, not unaided by miraculous intervention, of that original tongue had resulted in the infinity of dialects now existing. But the students of language have come to see clearly that men as they are, with the natures implanted in them and in the circumstances by which they are surrounded, not only might, but certainly would, work out by the normal exercise of their powers means of expression and communication such as we now see them possessed of; and that the origin and history of speech are thus completely accounted for by causes which we are accustomed to call natural. explanation is not yet so universally accepted as is that of the geological history of the earth; but only because it is newer, and deals with considerations of a less palpable, physical order: no well-informed and candid man will question that the evidence in its favor is capable of rising to a degree of force that shall be practically irresistible. Nor is the case far different with the other institutions of our race. Every people that has risen high enough in intellectual curiosity to speculate on the beginnings of its culture has attributed them to the direct agency of its gods, unable to understand how they could otherwise have come into being at all; unable to conceive of primitive man as set down in the earth naked and weaponless and destitute, and yet endowed with powers by whose gradual training and exercise he should win the forces of nature to his service, and gain command of a wealth and knowledge whereof we do not yet see the limit.

Now it seems evident to the modern students of man's history that the same question has to be raised respecting his religious institutions that has been already raised and in good measure answered respecting his languages, his organizations of society, his arts, and the rest. We must at any rate look to see

whether there is anything in ordinary and universal human nature that should necessarily lead men to the discovery of religious truth, or of what they take for such, to the formation of a body of beliefs and of practices incorporating those beliefs. That is to say: men being such as we perceive them to be, and their circumstances such as we know them, are the great mass of the religions of the world to be accounted for as results of the normal exercise of men's faculties under government of the usual motives to their exercise? If such is found to be the case. the scientific study of religions wins a very different basis; indeed, we may even claim that it for the first time finds a solid basis at all. For the miraculous is no proper matter of scientific investigation. This can be carried on only in the way of observation and comparison; and a miraculous intervention neither comes at present under the ken of the student, nor is admitted by him in the past for any department of man's development save the religious. If, on the other hand, we have within our reach the whole material of study, with all the forces whose action is to be allowed for, in human circumstances and human nature respectively, the problem is a truly scientific one, like that of the origin of language or of the solar system, and capable of such solution, more or less complete and detailed according to their inherent difficulty and our command of the necessary data, as scientific problems in general admit. The use, then, of the name, "science" of religion, or of anything equivalent to it, implies that there is believed to exist in observable human nature something which regularly and inevitably leads to the formation of religions. And such is the firm belief of those whose views we have undertaken to set forth. As things now are, a religion of some kind constitutes a part of every existing form of culture, and is handed down to each inheritor of that culture—like, for example, his language; but if we could suppose them all torn up to the last rootlet and flung away, something like them would (we cannot tell in how long a time) spring up to take their place, and that without any superhuman aid. How much of absolute truth would be in any or in all of them is another question. The Christian believes that only by an auxiliary revelation could the rooted errors of every heathen

belief be destroyed, the actual origin and destiny of man made known, and the successful practice of righteousness assured; and it involves no relinquishment of this belief to admit the natural and necessary growth of such reachings-out after the truth as religions of the origin just assumed would be, or as those are which are now seen in existence outside the pale of Christianity.

But what is the faculty or tendency in human nature working toward such an end? To call it a "religious instinct" will not help us much: any more, in fact, than the assumption of a linguistic instinct to explain the formation and use of language, or of an architectural instinct to explain the building of shelters, from the ice-hut of the Eskimo to the palace of the European noble. The application of the word instinctive at all to the productions of human intelligence amounts to a confession of inability to say anything in explanation of them. We recognize instinct in the song of the solitary cage-reared bird, precisely agreeing with that of his kindred in field or forest; or in the dam-building of the tame beaver in his waterless hutch; but man's way of working is by the slow process of observing and comparing and deducing and applying means to ends—a process of which, when his powers of reflection are developed by culture, he can give a reasonable account to himself. Beavers' dams are practically alike, wherever set up; but religions are as unlike as buildings; and an instinct or special faculty producing them all would certainly admit of an analysis that should leave only a minimal residuum for the pure unalloyed product of the faculty itself: the differences between religions are many times greater than the difference between certain religions and nothing at all. still less use, if possible, is it to trace religion to a desire to "apprehend the Infinite;" nor is it easy to see how one should imagine that by such a dictum is contributed any aid either to the theoretical comprehension of religion or to the explanation of its origin. It reminds one of nothing so much as of the wisdom of the Sunday-school orator who, having let fall the word "abstract," immediately added, "You will understand that by an 'abstract' I mean an 'epitome.'" Or it is as if one were to ascribe language to a yearning to incorporate the incorporeal, or

instruments to a tendency to enslave the energies of matter. Such indefinite and high-sounding phrases are only a cloak to hide poverty and indistinctness of thought.

No one will deny that the object of religious inquiry, in all ages and stages, is to learn something about the Maker and Governor of the world, and our relations to him: the question for us to solve is, What should lead even unenlightened men to enter upon such a far-reaching and difficult inquiry, and what should put into their minds the answers with which they strive to satisfy themselves? The solution lies so near at hand as not to have been missed except by those to whom a simple solution is no worthy one. Before and around all men alike are spread out the works and ways of the creation, in which, if anywhere, the nature of its creator is to be read. If we take any other than the transcendental view, asserting that we know only our own existence and states of mind, if even those, we must hold that man is in his most essential character an intelligent being, capable of being impressed by those processes of the external world which communicate themselves to him, of apprehending them, studying them, reasoning upon them, and adapting himself, actively and passively, to them. If there is a Creator, it is the simplest thing in the world that men should gain from his works some knowledge of him, and ever more and better. if there be none, or none of whom we can have any real knowledge, men, on their way to the recognition of the fact, will postulate one, and give him form and attributes, in a series of successively amended incorporations, until the error of even the last and best of these shall be finally discovered.

The intellectual agency at the bottom of the process, efficient equally in the unenlightened and in the enlightened stages of human development, is the simple faith in the connection of cause and effect, the belief that behind every effect lies a cause, which is to be sought and may perhaps be discovered there. That such a belief is firmly established in the mind of every human being is universally allowed, tho as to how it came there there is plenty of dispute, some regarding it as an intuition, a part of the very structure of the mind itself, while in the view of others it is rather an article of mental furniture, an immovable fixture, a deduction from experience, which shows so widely and

constantly that one thing proceeds necessarily from another, and that a thing is because something else has preceded and led to it, that we generalize it into a universal rule, of which the sway grows firmer with every new experience of necessary sequence. On such points opinions will probably always be at variance, according to the character and training of those who form them (a certain American metaphysician of no mean repute holds even that the law of gravitation is an intuition); but so far as our present purpose is concerned the variance is of no account. The truth that we need is one conceded by all; namely, that men, even the lowest, will look for a cause or causes behind those events of external nature which concern them, and will find or imagine one; will frame a theory to explain whatever they regard with Every race that has risen above the very lowest cares of provision for continued existence has some sort of a philosophy, or theory of the universe; and, as a part or aspect of this, a religion. The philosophy is the more comprehensive thing, including the religion; but the latter is the more practical and urgent, and apt to outgrow and overshadow the other. The philosophy is a matter of curious inquiry; the religion, one of absorbing personal interest. How it comes to be superadded we have now to go on and ask.

In the first place, as the problem of explanation of the phenomena outside himself must inevitably arise in the mind of man, however primitive and untutored, so the solutions he devises will as inevitably be anthropomorphic, and for the simple reason that he can form no distinct conception of anything of a different character. To him, he himself and his kind are the active and efficient agents whom he knows and knows bestagents that can devise and make, that can form a plan and carry it out. Accordingly, behind the effects of nature he conceives a set of more or less manlike effecters—beings endowed with will and the ability to execute it; of superhuman power, because their works are on a scale of grandeur far beyond the measure of man's abilities; undying, because they act on and on without cessation; invisible, because they are only perceived in what they do; but endowed, if the vivid fancy of their believer gives him sometimes glimpses of them, with a form resembling his own: in short, magnified and intensified human beings, with only such variations and additions as the imagination working on a human basis may suggest. All the occurrences of nature are paralleled with human proceedings: the wind is blown breath; the thunder-storm is a battle; the sky looks down at night with innumerable eyes; the earth is a mother, bringing plants and animals to birth when fertilized with showers of rain by the heaven-father; the sun rides up the sky; he shoots burning arrows at the earth; or he is born in the morning out of the bosom of the night and dies again at evening—and so on in endless variety, which it is needless to attempt here to illustrate.

There follows from this a corollary, which may well enough be at once noticed: No religion having a natural origin can be otherwise than polytheistic. The variety of effects to be accounted for leads without fail to the assumption of a variety of causes. The power to penetrate this variety and discover beneath it an essential unity belongs to a later and higher stage of development. A theory of primitive monotheism suits well enough with one of primitive revelation, but with nothing else. This seems so clear as to call for no labored argument to sustain it. And the facts of religious history are wholly in its favor. No trace of monotheism is to be found anywhere in the world except with a polytheism behind it: witness the Semitic polytheism out of which issues the Hebrew, and later the Mohammedan, belief in one god, or the Aryan polytheism underlying both the dualism (if it is fairly to be so called) of Zoroaster and such philosophic unity of creator as Hindu sages of the later time have sporadically come to hold. Where the contrary of this is sought to be discovered—as, for instance, by some authorities, in the Vedic hymns—it is only by an inversion of the true and obvious relations of things, and by other fruitless straining of facts to sustain an untenable theory.1

¹ That there is room, beside these two fundamental varieties of religion, to set up a third, a "henotheistic," as has lately been done by Müller and some of his imitators, is by no means to be conceded: the so-called henotheism is a purely individual phenomenon, of the most subordinate consequence. A henotheist is one who, while fully and constantly believing in a variety of gods, yet cannot refrain from ascribing to the one whom he is at the moment worshipping more than the strictly due share of power and prominence in the system. Any one who keeps a fetich or carries an amulet is as much a henotheist as is a Vedic poet; or, for that matter, whoever acknowledges a patron-saint.

So far we have noticed only the philosophic factor of belief: the mere recognition of extrahuman and superhuman powers under anthropomorphic forms is not yet a religion. other factor follows this by a necessity. Anthropomorphism is internal as well as external: it extends to character and motive not less than to shape and mode of action. The manlike beings who wield the forces of nature have also the feelings and passions of men, the disposition to do good and to do harm, and the capacity of being propitiated. If men could hold on their own independent way in the midst of nature, careless of what happened about them, their philosophy would never grow into a religion. But that is far enough from being the case: the supernatural powers are all the time interfering for good or ill with the concerns of man; his whole happiness is at their mercy: they send down upon him alternately blessings and calamities: causes outside both of himself and of his fellows are either frustrating his best plans or furthering them to a successful issue; and this he must attribute to the favor or disfavor of those whose will he regards as expressed in such influences. Propitiation must be attempted: if possible, one must ingratiate himself with the unseen beings whose benevolence is so important to him; or he must deprecate the malevolence they show. Hence follow two results of the highest consequence. In the first place, the practice of sacrifice and offering, which is a feature of every known religion: offering of property, deemed valuable to the divinity because it is valued by the offerer, and in every kind, from insignificant trifles up to animal life, and even that most precious article, human life; offering of whatever may be in other ways costly to the worshipper, as labor and penance, fasting and vigil, mutilation and self-torture; and, where the religion rises to a higher and more spiritual strain, offering of homage, of praise and of prayer. In the second place, the practice also of such conduct as will be pleasing to the superhuman powers. And what that is the anthropomorphic rule, of course, determines. Whatever is held by the man himself to be good and desirable he cannot but regard as acceptable also to the divinity. Religion thus re-enforces conscience, and adds a new sanction to the feeling of duty. The thing which should be done wins a greatly enhanced authority, as being demanded

by those under whose direction is the government of creation. Man makes himself and his conduct in this way a part of the general order of things: with what important effect is too obvious to need to be pointed out. This is the highest and the most elevating aspect of religions. They gain a moral element, and become furtherers of righteousness. The ideal of morality set up by different religions is, to be sure, a very various one, and often low enough; it cannot, in fact, but correspond to the grade of enlightenment of the moral sense reached by the votaries of each faith; but it is never altogether wanting, and it acts everywhere as a quickening and purifying influence; in devotion to religion is found in general the highest virtue and the fullest self-abnegation of which individuals in a given community are capable.

We are prepared now to lay down what may be called a historical definition of a religion, one representing its character as a historical development, taking due account of the elements that go to make it up, and applicable to any and all, whether the amount of truth contained in them be greater or less. religion is the belief in a superhuman being or beings whose actions are seen in the works of creation, and in such relations on the part of man toward this being or beings as prompt the believer to acts of propitiation and worship, and to the regulation of conduct. It is a philosophy with the application to human interests added; and not only added, but, as could not well be otherwise, made the prominent consideration: for man is everywhere ready enough to regard himself as the highest of nature's works, and to believe everything else made for his use and behoof; and, even if this were not so, his own destiny and what bears upon it is to him the thing of most consequence.

It will be clear from this why the question as to the universality of religion is a real one, and liable to different answers even from those who have the same, or nearly the same, facts before them on which to found an opinion. For there is nothing absolute about the presence or absence of religion in a certain culture, as there is, for example, about that of oxygen in a certain compound. It is a matter of degree; and hence the question of fact is in part also a verbal question: Are we justified in giving the name of religion to what is so little, or to what is so

low? As regards the quantity, it seems certain that, whatever we may deem possible in the very initial stages of cultural development, no race of men has ever been actually met with which had not arrived at some body of views, tho of only the most indefinite and shadowy character, respecting the forces—that is to say, the beings: for in such a mental condition the one is the necessary form of the other—expressing themselves in the phenomena of nature; the germs of a world-philosophy are every-That might be, however, without where to be met with. excluding the possibility that the feeling of relation between the extra-human forces and human beings which leads to acts of propitiation should be nearly or altogether wanting. Such a deficiency we call a lack of religiosity, or of the religious sense; and we see that it can be traced to absence of imaginativeness or of fervor of disposition on the part of certain communities, as on the part of individuals in any community. But that it is ever so complete in a whole race as to occasion a total absence of practices that may be denominated religious is not generally Religious institutions are held with probability to form some part, if only a minimal one, in every scheme of culture, however elementary, that has yet been brought to light.

A much more serious question is this: How broad and deep are we to draw the line between religion and superstition? That in their origin and essential nature they are alike is not to Both include a recognition of the supernatural, and a desire and attempt to win it over to the furtherance of human The distinction between them appears to be one of degree, and yet the difference in their tone and spirit is so great, as also in their effect on the human mind and on human culture. that we are naturally loath to give the nobler name to the more ignoble and degrading thing. We may also fairly say that the modern agnostic philosophy is bound on the same general errand; it, too, is searching after the hidden forces of universal nature, and striving to make them subservient to man's interests, as well as to his craving after knowledge; and it is of high importance to note this pervading analogy in men's dealings with the extra-human, from the very beginning through to the end. But, as the last of the three has succeeded in eliminating the element of a religion altogether from its belief, must we say also

that the first has not reached the height of a religious belief? The surface distinction between religion and superstition is obvious enough: the former looks up, the latter looks down. A religion has gods, whose worship does at least something to idealize and exalt the worshipper. A superstition is rather the incorporation of cringing terror; its gods are omnipresent evil influences, its rites are magic, and its priests are sorcerers. lowest and most synthetic form of recognition of the supernatural is fear of the dark; it is almost to be called an instinct. and is universal among those who are childish, in years or in development. It is not the mere feeling of helplessness when all that capacity of defence that depends upon sight is taken away: there is in it the element of the uncanny, an overmastering dread of unseen hostile powers. That which in the lowest races takes the place of religion is hardly more than an expansion of this feeling into an infinity of details, and an attempt by magical devices to establish such relations with the hostile powers as shall enable one to ward off their malevolence from one's self and turn it in the direction of others. An anthropomorphic conception of the forces of nature is as clearly traceable here, and as much the fundamental and determining element, as in the religions of a higher stage. But another anthropomorphic element is also very widely found in such beliefs; namely, the interference of disembodied human souls. It is astonishing how generally, in every stage of culture, men have been unable to believe that death is the last of a man. Races are the rare exceptions who do not hold, with greater or less distinctness, that those who have left this life are transferred to some other condition or place of being, and retain, at least some of them and at least for a time, their identity and the interests and dispositions that belonged to them in life. The more conspicuous illustrations of this are in every one's mind—the happy huntinggrounds of our Indian tribes: the Valhalla of the Norse warrior; the Hades of the Greeks; the resort to Yama, first semi-divine progenitor of the race, by his descendants and followers, which was the simple old Vedic belief, afterward altered into a series of heavens and hells, and still more into a system of universal transmigration, for the later Hindus; the ancestor-worship of the Chinese, strikingly akin with the Vedic; and the belief, obviously underlying

the funeral rites of the ancient Egyptians, that death is a transition state, paralleled with the underground nightly course of the sun: and that, if the right means are used, the personal identity may be indefinitely maintained, until the time of awakening shall arrive. The impressions under government of which, without the aid of any revelation respecting another world, this doctrine of existence after death grows up, assuming such variety of form, have been often set forth: inability to credit the complete stoppage, often suddenly and in mid-career, of so high an activity; the analogy of the deathlike, but only temporary, condition of sleep; dreams and visions, in which the dead are seen as if still living, or in which distant and strange scenes are visited by the sleeper; and other the like. The lowest and most superstitious form of the doctrine is the simple belief that the dead come back again and mix themselves in the affairs of the living, for good or for evil, but, in accordance with the cringing character of this stage of faith, especially for evil; accompanied, of course, by the further belief that they can be called up and their action controlled and directed. And this mixture of the post-human with the extra-human is capable of being carried so far that the distinction of the two becomes evanescent, and the spirits of the departed and the hostile spirits that are threatening harm to men from behind every natural phenomenon are well-nigh or quite identified. The whole class of doctrines belonging in this lowest stratum, and in which this peculiar kind of anthropomorphism has blurred the line between the human and extra-human, has for some time past gone by the name of "animism"—a successfully descriptive and useful designation, provided we do not suppose ourselves to have explained by it the nature of the system, or fail to resolve its varieties into the action of their determining causes in human nature, and of the same causes which have given birth also to the religions of higher class.

Since low superstitions of the kind we have been noticing seem to be characteristic of a stage of intellectual development, the inclination is strong among students of religions to regard them as historically the antecedent and foundation of whatever is higher; or, rather, to assume as underlying the polytheistic religions a condition of belief in which there was nothing better,

nothing more definitized and clear, than in the forms of animism: for some of these have worked themselves out into such a complex of degrading and disgusting practices that the possibility of their development by internal forces into anything more elevated seems excluded; the ground they occupy is barren of good until cleared of them by some destructive process. no religion is free from admixture of superstitious and magical elements; not even professed acceptance of the very highest can banish from men's souls all allegiance to practices that belong to the lowest. Devils and demons continue through all changes of faith to be the anthropomorphic solution of the problem of evil; the practice of witchcraft was forbidden. not its possibility denied, in the most enlightened communities of the world down to almost our own time; and lucky and unlucky times and acts, and the evil eve, and amulets and consecrated rosaries, and so on, attest even now the almost insuperable difficulty of rooting out of the mind those persuasions which have been from the beginning of time the source of false religions. Religion alone is not equal to the task; only under the added influence of physical science, which draws with sure hand the boundary-line between the human and extra-human, and substitutes a philosophic for a magic control of the forces of nature, does witchcraft lose all its power and disappear, simply because it no longer finds any credit.

Our general conclusion, then, must be that the question where, in the continuous development of men's inferences from the phenomena of nature respecting the forces that move nature—that is to say, of their philosophies—the element to be distinctly called religious comes in, as well as where it goes out again, is mainly a question of the division of things that pass into one another by insensible gradations and are mixed together in varying proportions; and so that it is a matter for reasonable difference of opinion, and of only subordinate consequence in comparison with our recognition of the unity of those tendencies in human nature, acting under the impulse of human circumstances, which produce the whole course of the development. The number and variety of beliefs and practices in the sphere of religion is infinite, and in their details a subject of extreme difficulty to deal with; even as the number and variety of men's

languages, and of the formations and combinations which these contain. In them are incorporated all the differences of men's capacities and dispositions, working themselves out under all the differences of external conditions mixed with conditions of historical sequence. They may be found set forth more or less fully in the many descriptive works on the heathen religions which have appeared in recent time; we have no room here to exemplify them, even briefly and in the way of illustration.

It follows from the views here taken that there would of necessity grow up, in every primitive community that was homogeneous and held together long enough, a certain body of common views of the system of nature, with the consequent admixture of a religious element, or of what did duty as such, finding expression in words and acts and institutions; and that these would be handed down by tradition, changing as they went, like other practices and institutions. Now, of all traditional institutions, the language of a community is found to be, on the whole, the one that cleaves closest, leaves its traces longest, and yields the most accessible and the most trustworthy evidence. There is nothing else which discloses so much respecting the existence and fates of those early communities which were in great part races also, and apart from which, at any rate, we shall never know much about the ancient divisions of humanity. If, then, we discover in language evidence of the former existence of a unitary community which has spread and branched and scattered until its dialects have come to occupy a considerable part of the earth's surface, we shall have no doubt that it possessed before its dispersal a common religion, of which traces may be expected to be found in the various beliefs of those among the now separated branches which have not in the mean time undergone a religious revolution. Every one knows what is the most conspicuous and important illustration of this truth that has yet come to light: the establishment on the evidence of language of a primitive Indo-European mother-tribe, from whose tongue have descended those of all the enlightened communities in Europe and of a part of those in Asia, at once challenged a search after relics of the faith that must have been held by that mother-tribe. And every one knows how well the search has been rewarded: how that the records of the old Vedic mythol-

ogy, chancing to exhibit something of the same exceptional primitiveness which belonged to Vedic language, were applied successfully to explain the mythologies of the pre-Christian periods of the other branches, Greek, Latin, Germanic, and the rest: nay, that even beneath an upper crust of Christianity have been found all over Europe in popular festivals and superstitions and legends—in short, in the whole department of folk-lore abundant traces of the original Indo-European beliefs. discovery laid, in fact, the practical foundation of the whole historical and comparative study of religions; since it was seen that what had been found true in this instance might, with due allowance for the difference of circumstances, be found true The idea of ethnic religions, and of their divarication by traditional growth, was clearly grasped, and the method of their historical investigation was established, and then faithfully extended and followed out. Another natural result was the linking of the comparative study of religions to that of languages, which had been and continues to be its most efficient aid; the striking analogies of material and mode of treatment between the two have been already referred to above.

An ethnic philosophy with its accompanying religion has its normal growth by gradual modifications and additions and losses, just like a language. Each successive phase of it contains nearly the whole of the next preceding phase, and more or less of yet earlier phases, in proportion to their distance. spite of all the changes passed upon it, the traditional basis long continues traceable, altho, after a lapse of time greater or less according to the rate of alteration, it is capable of disappearing beyond recovery; even as the original structure and material of a language may be wholly hidden from sight by the disguising growths of a later time. Hence it follows that the first shapings of the hitherto indefinite views of a race, their first crystallizations into the form of doctrines, or myths, or individualized divinities, must have an influence out of proportion to their intrinsic importance upon the views of after-generations and the history of development of those views: even, again, as the first beginnings of structure in a developing language go far to determine the lines of later growth. But the growth of a religion is by no means wont to be informed throughout by the full intel-

ligence of those who hold it, and to change only in adaptation to the changes of their religious sense and of their comprehension of the world about them. On the contrary, it always tends to outgrow the understanding of its votaries, and to become a traditional system of names and forms, taken upon trust and believed in because hitherto believed in its fundamental doctrines obscured, its practices only half comprehended, and their origin wholly forgotten. What in the history of language is analogous to this is the oblivion of the imitative and interjectional basis on which its first spoken signs rested, and its reduction to a purely conventional and traditional character; and then, further, the constant virtual repetition of this process in the neglect of the etymological meaning of individual words. and their transfer to offices which that meaning would never justify. But language is an instrumentality of which practical availability is the highest quality; and since this is only furthered by the complete conventionalizing of its constituent words and forms, the conversion is to be regarded as a normal and healthful one; while the traditionalizing and formalizing of a religion is of quite a contrary tendency. The rationale of the process is simple enough. As a rule, all over the world, a child grows up believing and worshipping as those about it, especially its parents, do; following the same religion with them, and the same sect of a religion, if there be such, down to its minutest subdivision, by the mere force of imitation and instruction. Then, when he grows older, and should have a judgment of his own to exercise in the matter, his habits and prejudices are already so formed as to render him incapable of a real judgment, and he goes on to the end as he had begun, accepting and in his turn propagating such doctrines and rites as he is used to, with a comprehension of them far less than would have been needed to compel his free and independent adhesion to them, making his religion a matter of faith with every degree of insufficiency of knowledge down to its total absence. A doctrine at its inception is strongly felt; it is the direct expression of the religious sense of its founders; but their actual vision becomes transmuted into the blindness of imitation on the part of their successors. A divinity is inferred from a certain class of effects in nature, and receives a name and is invested with

certain offices and attributes: then he becomes more and more an object of imitative worship and echoed description, and all that was at first characteristic of him is blurred into indistinctness. The history of rites is the same. The religious practices of a community come to be an established institution, having an independent propagative power of its own, its general purpose well enough understood, but all its details lacking the living force that once belonged to them. The stated performance of a fixed ceremonial, public or private, gets to be viewed as the highest religious act. It is by no means only in the department of religion that human institutions have the tendency thus to swing off their natural basis and acquire an independent value and sanctity: look, for example, at the way in which the sentiment of loyalty has exalted into something almost divine the simple administrative device that, for the greater stability of organized society, the eldest son of a chief ruler shall succeed to his parent's prerogatives. To hear some of the extollers of royal legitimacy, one might suppose the world created chiefly for the purpose of incorporating the great principle that a hereditary sovereign is master of the fates of his subjects.

Of the formalizing of religion by tradition there are certain special classes of results which call for brief notice.

In the first place (as already intimated above), the original significance of the names of gods, and their original spheres of action, are dimmed and forgotten. As regards the former, their fate is like that of proper names in general, which, beginning always with being significant, end in pure conventionality; and the individual office, tho the distinct recognition of it lasts for a time, is equally liable to fade out of knowledge. stage, for example, which the old Indo-European religion had reached in Greece, name and office of even the chief divinities have in general become so disguised as not to be traceable without the most careful investigation, and the help of comparison, especially with a less metamorphosed stage, like the Vedic; while even in the latter there are a plenty of doubtful problems. Sometimes the still discoverable etymology of a name furnishes a valuable intimation of the primary office, as when we find the words dyu, "heaven," and dyu pitar, "heaven-father," in Zeus and Jupiter, or interpret the Vedic Varuna as the "enveloping"

firmament; and it is in this way that language-study furnishes much of its aid to mythology. But, on the other hand, the office may be more distinct than the name, as in the case of the Greek ocean-god *Poseidon*, or the Hindu god of the thunderstorm, *Indra*, at the significance of whose titles only dubious guesses can be given. Characters and offices undergo redistribution, and a gradation of rank springs up which is foreign to the primitive character of a nature-religion.

Again, a mythology is liable to undergo a similar metamorphosis. A mythology forms a part of every nature-religion, and is more or less full and rich according to the liveliness of poetic fancy of its makers, and the distinctness of anthropomorphic personification with which they have invested the objects of their worship. A myth is by origin the statement of a natural phenomenon, cast in terms of a personal action: thus, Thor the thunderer hurls his hammer at the giants; it is stolen from him by the powers of winter, but recovered again after a season; his Indian counterpart Indra drives his noisy chariot across the sky, and transfixes the demon Vritra with his sharp weapon; the Dawn, a beautiful maiden, opens the gates of morning to the sun; Night spreads her sable mantle out over the world; In the beginning these statements have just as much distinctness and universal intelligibility as belongs to the beings to which they attach themselves; but they too share in the dimming and transforming to which these are subject. They are told over and over, passed from mouth to mouth, each time with some loss of comprehension of what they really signify, and with additions and alterations, always in the direction of a completer anthropomorphism; till they become mere stories, bits of biography of the divinities active in them-or of the heroes into which, by their aid and by the exaggeration of the anthropomorphic process, those divinities are converted. tho we need not deny that, in the growth of religions, mortals are sometimes raised to the rank of gods, we see clearly enough that the transfer is usually in the opposite direction; legend is in great part mere metamorphic myth, and legendary heroes are nature-gods humanized into the semblance of fleshand-blood men: it is another way in which the boundary-line between the human and extra-human becomes effaced in the

naïve apprehensions of a primitive people. There is nothing more obscure in this than in the other parts of the formalizing transformation of religions under the careless keeping of tradition; but because tradition implies the instrumentality of language, it has seemed to certain scholars that they account for the whole process by defining mythology as "a disease of language:" a definition in which, if we are to take it as seriously meant, and not as a mere piece of mythologic pleasantry, we hardly know whether to wonder most at its utter misrepresentation of language, or at the ignoring of the real forces concerned which it implies.

Yet again, it is still more obvious that the forms and ceremonies of a religion tend to become stereotyped, to be practised by those to whom their original sense is unknown, and would if realized be unacceptable, and to have a growth of its own, as ceremonial, without reference to its underlying meaning. Thus, for example, the infinitely complicated Vedic ritual maintained itself throughout the whole series of revolutions of religious history in India, and is even yet practised by the Brahmanic priesthood, tho its significance has long since completely died out. Or-since there is almost nothing in heathen religions which has not its analogue in the aberrations of one or another form of Christianity—we may take as an example of a different kind the growth and propagation of the Romish ceremonial, involving the metamorphosis of the simple commemorative Lord's supper into a miraculous sacrifice, patterned after the sacrifices of the religions which Christianity displaced.

Once more, it may be fairly claimed that idolatry, wherever found, is a product of the degradation of a religion. There seems no good reason to believe that the actual worship of individual objects, whether images or anything else, is an original feature in any religious system, lower or higher. At the outset, the use of such objects was only an aid to devotion, or help to the worshipper in his effort to concentrate his thought upon what is invisible and ineffable; or else, by some means or other, the particular object has acquired a special portion of the universal energy, something of the sanctity which is capable of being attributed also to particular times and particular places.

The most enlightened worshippers continue fully aware of the merely representative character of the object: only, of course, the ignorant multitude as good as deify the symbol, and that in the highest religion as well as in the lowest. It is but a descending series from the holy water and relics and miraculous images of Catholicism, down through the effigies and holy places of the nations in general, and the almost universal use of amulets, to the rude stone or clod of the fetish-worshipper. Fetishism is the lowest form of idol-worship, yet essentially akin with all the rest, and, like the rest, a blundering and degraded version of something better that preceded or accompanies it. And the very spirit of fetishism is seen in the insistence on the details of ceremony, and the worship of utensils and postures and dresses, which are not unknown even within the limits of Protestant Christianity.

It is to be added that a most important item in the history of development of a religion, giving enhanced efficiency to all its bad tendencies, is the uprisal of a priestly caste or guild, regarded as supernaturally endowed with peculiar wisdom and sanctity, which takes into its special keeping the doctrines as well as the practices of the national faith, and authoritatively expounds the one and performs the other. Not only does this widen the distinction that must always exist between the instructed and the uninstructed worshippers, but it introduces an element of selfish interest that tends to spread corruption everywhere. We have no room to dwell upon the priestly factor in religious history, but it plainly does much to complicate the already intricate combination of causes that enter into and determine the course of that history.

Under all these influences, it may fairly be claimed that the normal tendency of a religion, when once formulated and established, is toward decay: it is not maintained at its original height, but sinks on the one hand into priestly formalism, and on the other into popular superstition. To a gradual and penetrating reform, which should keep it up to the level of the best and truest thought in the community that professes it, it offers in general a successful resistance. The case cannot in the nature of things be otherwise. A religion is, as we have seen, the out-

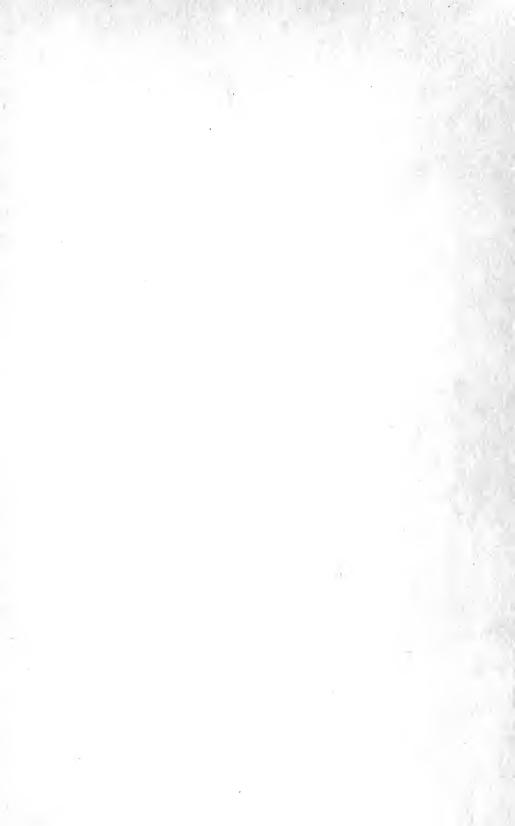
growth in a certain direction of a philosophy. It is founded on and includes in its own structure a certain solution of the problem of the universe, investing that solution with all the inviolable sanctity which it is able to bestow. Its attitude is not that of one offering the best light that is thus far to be had, and craving more; it is that of one who knows absolutely, and can speak with supernatural authority. It says, the gods are so and so, and their government of men is after this fashion, and they are to be thus propitiated and worshipped; and he who says otherwise is an impious blasphemer. And this, partly with all the fervor of sincere faith, partly with the obstinacy of unreasoning conservatism, and partly with the selfish fury of a guild that sees its craft endangered. No religion that does not itself contain and teach the absolute truth can look without fear on those who, unsubmissive to its authority, are searching after more and truer truth. This is the ground of the so-called antithesis between science and religion. Even the Greek faith, hollow and weak as it was, and nearing its downfall, had vigor enough left to persecute the philosophers, and put the best of them to The sometimes-vaunted toleration of Mohammedanism lasted for but a moment of perplexed ignorance, until the faithful realized what was the nature and tendency of the scientific movement; when they stamped it out so thoroughly that nothing more was ever seen of it. Even Christianity, three centuries and a half ago, had to pass through a revolution, with fire and sword and endless devastation and misery, in order to make partially successful what needed not to be the substitution of a new faith, but only the return to something nearer its own original standard, to rid itself of the usual dual product of degradation, priestly formalism and hypocrisy and popular ignorance and superstition, and to shake off the Inquisitorial hands that forced a hollow and fruitless recantation from the lips of Galileo, and even now would gladly strangle modern knowledge and education, as subversive of its sway over the minds of men.

Thus the old race-religions could not but become effete, incapable of satisfying the more enlightened religious cravings of the communities that had produced them. But, incapable also of reformation from within, of revivifying themselves by

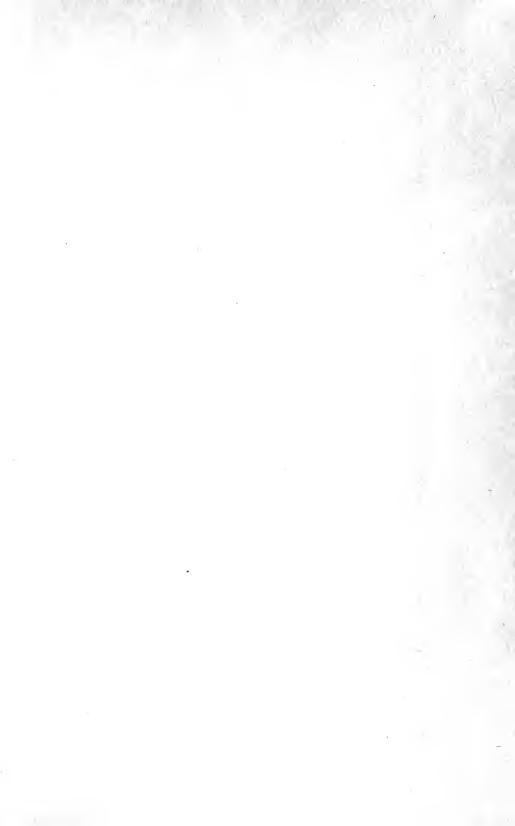
absorbing and representing the thought of the best and wisest of their devotees, they have had to submit to complete overthrow, and the substitution of faiths of a different origin. There is no more marked distinction among religions than the one we are called upon to make between a race-religion, which, like a language, is the collective product of the wisdom of a community, the unconscious growth of generations, and a religion proceeding from an individual founder, who, as leading representative of the better insight and feeling of his time (for otherwise he would meet with no success), makes head against formality and superstition, and recalls his fellow-men to sincere and intelligent faith in a new body of doctrines, of specially moral aspect, to which he himself gives shape and coherence. Of this origin are Zoroastrianism, Mohammedanism, Buddhism; and, from the point of view of the general historian of religions, whatever difference of character and authority he may recognize in its founder, Christianity belongs in the same class with them, as being an individual and universal religion, growing out of one that was limited to a race. For faiths thus originated have a very different propagative force from their predecessors: the latter were content with the allegiance of the race that produced them, tolerant if not interfered with on their own ground, ready to admit the claims of other faiths like themselves, and even to borrow from them; the former claim an undivided authority and unlimited acceptance; they go proselyting, by persuasion or by force, in every direction; they are strict to impose uniformity within and break down opposition without; and they have long since brought within their pale all the leading nations of the world.

We have thus made a hasty review of the outlines of what the historical and comparative study of the world's religions, ancient and modern, believes itself to have established, and so solidly that it is likely in the main to stand, whatever modification in minor respects, and whatever filling-in of particulars, it may receive from the results of future investigations. That it will ever attain in detail the definiteness of the kindred science of language is hardly to be expected; it is a history of men's opinions, as inferred from modes of expression far less clear, objective, and trustworthy than are the records of speech. But, whether it attain or not the *status* of a science, it is at any rate a branch of the study of man and his institutions having such importance that no one can afford to be ignorant of its methods or to disregard its results.

WILLIAM D. WHITNEY.









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